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A Study investigating the impact women have on the bindery

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A Study Investigating The Impact Women Have On The Bindery

By

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A thesis submitted in partial fulfillment of the requirements for the Master of Science degree for Printing Technology in the School of Printing Management and Science in the College of Graphic Arts and Photography at the Rochester Institute of Technology.

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Thesis Advisor: Werner Rebsamen

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TABLE OF CONTENTS

LIST OF FIGURES

ABSTRACT

The evolution of women from working mainly in the household to the work place began out of an economic need on the United States' part. With the westward expansion of the country and the Civil War during the nineteenth century, there was a shortage of male labor and women were hired as unskilled workers, at first, to keep the economic growth pace of the country in line with its physical expansion. Women became the predominant labor force in industries such as tobacco, textiles and bookbinding.

As book manufacturing grew to provide books for the mass population, women were the manual labor force of the bindery. The bindery is the most labor intense area of the Graphic Arts Industry. Today, one can enter any large printing plant or any small commercial printer and find the majority of the bindery labor force to still be women.

What impact did these women have on the bindery? Did these women have an influence or contribute to bindery inventions that occurred during the nineteenth century and the Industrial Revolution? Do women have an impact on the technical developments that are occurring today?

The objective of this study was to establish an hypothesis, or hypotheses, on the impact of women, or a woman, on the technical inventions, developments and advancements that have occurred in the bindery.

The methodology of this study was to conduct historical research and to conduct interviews for the current perspective. Historical research was included to give a more complete perspective as to when women first began working in binderies, who these women were and the attitude of society which told women what they could and could not do in the bindery. It is from this history that the theoretical basis for this study was developed.

The type of interview conducted was an ethnographic interview. An ethnography is a research method used by anthropologists to describe a culture from the perspective of those persons who are a part of that culture or the native point of view. For this study, the bindery is the culture and women who work in binderies are the natives of that culture.

In conclusion of the historical research conducted for this study and as a result of the interviews conducted for this study, no woman, or women, were found to have invented, technically developed or technically advanced any bindery equipment or to have an impact there of. From the interviews conducted these results are not shown to be conclusive.

An impact which was theorized that women may have had on the bindery is that women are more concerned with the quality of their work and that men are more concerned with the productivity level of their work. It may theoretically be more efficient for a bindery to have both men and women employed within, each at certain tasks.

There are recommendations for further study as a result of this study. In general, the area of women in the bindery requires more research both historically and currently. For women who currently work in binderies, their contributions and activities need to be documented. The hypotheses stated should be tested. Testing the hypotheses will verify if women are indeed more quality oriented than men and further investigation will need to be done as to why this is so, if they indeed are. A full ethnography of women, perhaps just in one bindery, should be done. The initial objective of investigating the impact of women on the bindery equipment and technology is recommended for further study and the methodology recommended is by an anthropological method called anthropomorphical.

CHAPTER I

INTRODUCTION

The Industrial Revolution was imported from Europe to the United States in the latter half of the eighteenth century. With the inventions of steam and electricity, the United States very slowly moved from an agricultural society to an industrialized nation. Mechanized manufacturing was introduced and became the way of life. The revolution still continues today with the advancement of the silicon chip, microprocessors and fiber optics.

Many changes were brought about in the United States as a result of the Industrial Revolution, but the revolution also had profound effects on individual aspects of society. One of the aspects that changed permanently was the role of women. Women, in large numbers, joined the wage earning work force at the onset of the Industrial Revolution and have remained an integral part of that work force ever since.

The evolution of women from working mainly in the household to the work place began out of an economic need on the country's part. With the westward expansion of the country and the Civil War during the nineteenth century, there was a shortage of male labor and women were hired as unskilled workers, at first, to keep the economic growth pace of the country in line with its physical expansion. Women became the predominant labor force in industries such as tobacco, textiles and bookbinding.

The earliest recordings of women binding books in the United States dates back to the earliest colonial days. It is difficult to get an in depth historical look of women's bookbinding activities since there is so little documentation of women during the early period of the colonies. However, some improvement in recording the role of women does occur thereafter. In general, there is better documentation of women as craftspersons doing hand bookbinding. A good portion of the historical documentation of women in the technical bindery consists of labor statistics and what wages they earned. The labor statistics include the number of women employed in binderies and the geographical locations. The tasks these women were employed to do are also found in company records. [Appendices A,B,C,D,E]

As book binding in the home became book manufacturing en masse in a factory, women were the manual labor force of the bindery. The bindery is the most labor intense area of the graphic arts industry. Even with the development of machinery which allowed tasks in the bindery to be combined and to be done with more ease and at a faster rate, women remained the principal portion of the work force. Today, one can enter any large printing plant or any small commercial printer and find the majority of the bindery labor force to still be women.

Developments and improvements to the press area, from circa 1798 and on, vastly increased the speed of printing. The iron hand press, developed by Earl Stanhope III in 1798, replaced the wooden

hand printing press. In following years the iron hand press was further improved upon by George Clymer in 1816, Samuel Rust in 1827,and, Dr. William Church who in 1821 added ink rollers to the press. In 1814 Friedrich Konig developed the first cylinder press, stereotype plates were invented in England in 1802 by William Ged, and M. Genoud, of France, in 1829, developed the curved plate which led to the modern rotary press. The idea of a paper making machine first conceived by the Frenchman, Fourdrinier, and successfully developed by Louis Robert in 1799 must not be overlooked. From these inventions it is important "to realize fully the impetus that gave rise to edition bookbinding." [1]

The increased speed of printing placed pressure on the bindery to increase its speed. At first this was done by hiring more hands but towards the end of the nineteenth century inventions of bindery machines occurred. The following inventions lay ground for the modern bindery: the Smyth Book Sewing Machine in 1882, the Sheridan Case Maker in 1897, the Dexter Folder in 1898 and the Crawley Rounder and Backer in 1900. All of these pieces of machinery were invented in the United States. [2]

The women who worked in the bindery at the time these first bindery machines were invented did not welcome this mechanization, nor did they welcome the improvements of them or the inventions of other machines such as the signature-gathering machine and the wire stitcher. These machines replaced the women who worked in these binderies and the women did not like being placed out of their

jobs. Women had discovered being independent and self supporting and had become accustomed to this way of life. As it was already difficult to find steady work before these machines were invented, the machines added more problems for these women. The main problem which women faced with these machines were in learning how to operate them. Women were kept to operating the folders, the stitchers and the sewing machines. If women wanted to advance their positions in the bindery this was done by luck. They would teach themselves how to operate the other equipment by watching others while on their breaks or they would come in early or stay late on their shifts to work the machines on their own. This was usually done when the number of jobs in the bindery was low. Apprenticeships were not offered to women or were difficult to get. For those women who belonged to unions the number of apprenticeships open were few and the competition with the men for them were too great.

In looking at a bindery today there is excitement in the development of machinery which allow materials to be handled with greater ease and less physical strain on the workers and closed loop systems which eliminate the need for tedious, monotonous and repetitive tasks to be done manually. The technical advancements which are occurring today are not just necessary in the printing industry, particularly in the bindery area, but are mandated as well. Technology is the tool most often relied upon in an increasingly competitive economic world. The automation process begun over a hundred years ago finally nears completion. The number

of new workers, 18 to 26 year old, entering the labor pool continues to shrink. The Department of Labor has estimated that by the year 2000, the printing industry will need over 100,000 new workers. [3] Women will continue, as they have historically, to fill the gaps of employment, but unlike the past, their predominance will not remain in the bindery but will branch out into other areas of the graphic arts.

What impact did these women have on the bindery? Did they have an influence or make contributions to the inventions that occurred during the nineteenth century and the Industrial Revolution? Do women today still have an impact on the technical developments that are occurring today?

The objective of this study was to establish an hypothesis, or hypotheses, on the impact of women, or a woman, on the technical inventions, developments and advancements that have occurred in the bindery. The focus was on women and binderies in the United States from the nineteenth century through today. Historical documentation of the bindery and the women who worked in these binderies and a comparative look at yesterday and today are included.

FOOTNOTES TO CHAPTER I

1. Joseph W. Rogers, "The Rise Of American Edition Binding," RR Bowker Company, NY and London, 1967, p.133.

2. Frank E. Comparato, "Books For The Millions: A History Of The Men Whose Methods And Machines Packaged The Printed Word," The Stackpole Company, Harrisburg, PA, 1971, p.71.

3. "Forecast Of Graphic Arts In 1990," GATFWORLD, Volume 2, Issue 2, March/April 1990, Graphic Arts Technical Foundation, Pittsburgh, PA, p.31.

CHAPTER II

THEORETICAL BASIS FOR THE STUDY

In the craft of hand bookbinding women did not encounter the same struggles that the women in the commercial hand binderies, later to become the mechanized bindery, encountered. Names of many notable females as skilled hand binders can be found in books on the subject of hand bookbinding. Emily Preston, Katherine Gerhard, Mary Buglass, Elizabeth Mintz, Rachel McMasters Miller Hunt and Sarah T. Prideaux are the names of some. Sarah T. Prideaux is the most notable and she wrote several books about the craft.

Many female hand bookbinders studied under Thomas J. Cobden-Sanderson or were influenced by his bindings. Cobden-Sanderson is a famous bookbinder of the nineteenth century. These women found ways to get sponsorship or sponsored themselves to study under Cobden-Sanderson. This alone was really no easy task financially for these women, especially knowing that once they had become skilled in the craft that this craft was not known to be one where a craftsperson could be self supporting by it. Training could take two years and then only years of practice would improve their bindings.

If one considers the binding of books to be simple merely because women entered this craft, this is not so. For men and women, this craft is properly called a craft. The following is an excerpt from a profile of the bindings of Rachel McMasters Miller Hunt:

> The craft of bookbinding requires precise muscular control persistence, and a dauntless temperament, especially if the hand binder carries out all the operations involved in sewing, forwarding, and tooling. ...It is rare to find combined in one person both the technical and artistic powers required to carry out satisfactorily all the steps necessary to create a gilt-tooled leather bookbinding from start to finish. For this reason, for several centuries the various stages have commonly been accomplished by different persons in a bindery, sewing by one, forwarding by another, and finishing [tooling and onlaying] by the principal craftsman of the teams. [1]

Because of the skill requirements for bookbinding by hand it was necessary to divide the work into segments. Since the hand process of binding a book was broken down into stages it is logical, that in the development stages, machines would do the same. The mechanization would look at one stage at a time and with advancements these same machines would combine two or more tasks into one.

Improvements to the printing area placed pressure on the binderies to keep up with the increased speeds of the presses. The new developments made to presses occurred prior to the invention of the first bindery machine and so more women were hired to help relieve the bottleneck in the bindery. Were these women hired based on

their availability to work or were they hired because they had the aptitude necessary to do the work?

There were females, as young as, fourteen years of age employed in binderies as reported by Mary Van Kleeck on her investigations of binderies [Appendix A]. They would stand on their feet for ten, twelve, fourteen hour shifts folding, sit for sewing, walk around large tables repeatedly to gather signatures or bend over to stack and lift piles of the signatures and the finished book. Many times these long shifts were in the middle of the night, and it was not uncommon for these women to take work home with them at the end of their work day. They were paid by the piece, and the wages were so low that no matter how fast they worked at their job, it remained a struggle to make financial ends meet. Usually only one short break in the middle of a shift was allowed so a meal could be eaten.

Bindery work was the lowest rank of work to be done in the entire graphic arts industry. Just as cleaning a house and raising children were labeled as women's work, so were folding and sewing in the bindery. But women had become accustomed to their new found freedom from the home and they would endure the physical strain and mental fatigue. Government legislation to regulate the work environment would not come until the early twentieth century and it was a slow process to evolve.

The culture of the society determines what work women could and could not perform. Culture is a result of people's work and thoughts, at a particular time, which are used to determine behavior within a society and passed on to following generations of people. In the commercial binderies, women were kept to what was known as the preparing area or department. This is where the printed sheets were folded and sewn into signatures. Women were barred from what was considered the important work, the forwarding area. In the forwarding area, the sewn signatures were pressed, they were trimmed, their backs were rounded and backed, end papers were pasted and covers were glued on. Though there were women who had proved themselves physically and artistically capable of performing the tasks of the forwarding area as hand bookbinders, women had not broken ground to do the same in the commercial binderies. Other tasks that women were allowed to do, other than those in the preparing area, were to lay the gold on the covers for goldstamping and the wrapping and packing of the finished product.

From Comparato's "Books For The Millions:"

> The invention of the book-sewing machine was an unassuming, unheralded novelty from several points of view: although it promptly removed the most serious obstacle to book mechanization, it was also one of the first bindery machines of more than simply labor reducing value -- of more than incidental importance to the finished product. It did not merely duplicate

> with deft mechanisms what delicate fingers could do; it produced a simultaneous sequence of multiple stitches in many ways far superior to hand work. ...The science of mechanics had, with the sewer, delivered all of which it was capable -- self-operating needles infinitely faster, more uniform, and cheaper than ever so many feminine fingers. [2]

It is interesting that the author of this statement uses the words "duplicate", "delicate", "feminine" and "hand" all in one passage. "Delicate", according to the American Heritage Dictionary, is defined as: 1. exquisitely or pleasingly fine, 2. frail in constitution, 3. easily damaged, 4. requiring or marked by tact, 5. keenly sensitive or accurate, 6. requiring great skill and expertise. Feminine: 1. of or belonging to the female sex, 2. marked by qualities attributed to women, 3. of or belonging to the gender of words or grammatical forms that are classified as female. [3] Do women have more precision and accuracy in performing the tasks of gathering, folding and sewing? This passage suggests the quality of the work of women influencing the development of this machine. The precision and accuracy of hand work performed by these women may have set a standard for this machine to match and exceed.

It is mainly from these two passages from "Books For The Millions", by Frank E. Comparato that forms the theoretical basis for this study.

FOOTNOTES TO CHAPTER II

1. Marianne Fletcher Titcombe, "The Bookbinding Career Of Rachel McMasters Miller Hunt," Carnegie-Mellon University, Pittsburgh, PA, 1974, p.3.

2. Frank E. Comparato, "Books For The Millions: A History Of The Men Whose Methods And Machines Packaged The Printed Word," The Stackpole Company, Harrisburg, PA, 1971, p.10.

3. The American Heritage Dictionary, Dell Publishing Co., Inc., NY, NY, 1983, p.88, p.259.

CHAPTER III

REVIEW OF THE RELATED LITERATURE

"Books For The Millions" by Frank E. Comparato, an RIT graduate, is a book encompassing all bindery inventions made in the United States during the Industrial Revolution. This book goes into great detail and tells a wonderful, interesting story of the history of the automation that brought books to the masses. This is presently the most comprehensive source of information concerning the mechanization of the bindery. Comparato covers the inventions of the bindery in full detail, large and small, and other inventions of the time period as well. Female inventors of bindery technology or some of their contributions to mechanization, had there been any, would have been included in this book.

In a review of the biographical dictionary Notable American Women [1607-1950], there are only three names under the listing of "Inventors". None of these three are related to the bindery. There is no listing titled "Binders" or "Bookbinders".

Several books pertaining to women in working positions and industry have been reviewed for purposes of this study. Though most cover women in printing, few discuss women in binding. From "Antique, Modern & Swash:"

> In all probability women did more binding in early times than they were given credit for. One of the reasons for the scarcity of women's names may be

> accounted for by the fact that in the early directories the name of the head of the business or family only appeared and would not include those women who, like Jane Aiken, helped the men of the family. [1]

These books discuss, in general, the fact that women have been working since the earliest of times when this country was founded and that they worked in a variety of positions including running businesses on their own. None of these books, though, investigate the impact of these women on their jobs or any technical developments which women might have made.

The most significant work found directly relating to this study is the work of Mary Van Kleeck. Her work was the only work found where direct investigations and study of women in the bindery were done. Van Kleeck was a social researcher who is well known for her work for the Russell Sage Foundation, for the founding of the Foundation's Industrial Studies Department, and for the founding of the Women's Bureau under the Department of Labor. She was this country's expert on women's employment for the first half of this century. Some of her studies for the Russell Sage Foundation are "Artificial Flower Makers" [1913], "Women In The Bookbinding Trade" [1913] and "Wages In The Millinery Trade" [1914]. "Women In The Bookbinding Trade" is the Foundation's most famous and well known study. It is from this study that led to the passage of legislation which prohibited factories from employing women to work from the hours of 10pm to 6am because it was believed at the time

that to work long shifts at such a late hour was detrimental to a woman's childbearing abilities and the welfare of family life. It is this study which will be discussed here.

Mary Van Kleeck [1883-1972], a graduate of Smith College, began her first work for the College Settlements Association in 1905 investigating girls employed in factories and child labor in tenements in New York City. She then moved on to the Alliance Employment Bureau as industrial secretary in 1906. In 1908 the Russell Sage Foundation began supporting her studies. The Foundation investigated and researched the social welfare and the living conditions of the United States and used its work to improve these conditions. The Foundation was a pioneer in the social work field and set the standards for the theory and practice of social research and social reform.

The bookbinding trade best represented the common problems of women in industry or what was labelled as "manufacturing and mechanical pursuits" [Appendix A]. Women of all ages from 14 to over 40 could be found working in the bindery. More than half of these women were under the age of 25. They did both skilled and unskilled jobs in the bindery. Wages were meager, working hours were too long and the working conditions unhealthy. The stability of their jobs was unpredictable. The binderies pushed for overtime during busy periods or rush jobs, and laid off their employees during the slow periods. Opportunity for growth and advancement on the job were extremely limited. The printing and binding establishments were

found to be the worst offenders of these issues. [2] The concern at the turn of the twentieth century was what was the impact of technology on these working women. The main focus being their physical and mental well being.

Preliminary data gathering for the study "Women In The Bookbinding Trade" was done from August of 1908 through August of 1909, and the study itself was conducted in 1910 and 1911. All of the data gathered and used were from interviews. The study was formally published in book form in 1913.

New York City, Philadelphia and Boston were the areas which had the most concentrated number of binderies and women employed in them. New York had the largest concentration of the three and it was here that this study was conducted. [3] Every bindery was sought out and interviewed as well as every woman employed in them. Interviews with these women were conducted either on the job or in their home. In these interviews, these women described why they worked, where they worked, their jobs in the bindery, what kind of training they had gotten or were receiving, the hours, the pay, the conditions under which they worked, how long their breaks were for meals and what kind of difficulties and struggles they met on the job and in their personal lives as far as being able to support themselves and family members.

The objectives of this study were to establish factually what the working conditions for women were and what their living conditions were and once establishing this, to use this information to raise

the public's interest and awareness and then to utilize both the public and this information to make improvements to the work environment and to the living conditions and to set standards for them both. This study laid ground to achieve these objectives but the struggle for some of these issues to be resolved are still prevalent today. Mainly the issue of fair wages and earnings for women is still in the progress of evolving.

Though this study dates back to 1913, the work of Mary Van Kleeck is of the utmost professional in the execution of her methodology and her writing. When reading this study [a version of this study given in a lecture is enclosed under Appendix A], it reads as though it were a contemporary study. Women who read this study will be touched and saddened to read that the pace of change for the working woman has been so slow to evolve and that the effort to maintain the changes that have occurred in the workplace must be persistent and tireless.

The purpose of including it in this study is that it was the only full investigation and in depth study this researcher has found to date which covers the same domain of this current study. The work of Van Kleeck influences part of the methodology of this study and is the incentive for this researcher to do this study. It is strongly suspected by this researcher that once Van Kleeck's study was established it gave the impression that no further study could be done or was necessary. This is a false assumption since so little women's studies exists in the graphic arts industry.

FOOTNOTES TO CHAPTER III

1. "Antique, Modern & Swash - A Brief History Of Women In Printing," published by The Club Of Printing Women Of New York in commemoration of its 25th anniversary, New York, 1955, p.19.

2. Mary Van Kleeck, "Women In The Bookbinding Trade," Russell Sage Foundation, Survey Associates, Inc., NY, 1913, p.1.

3. Ibid., p.2-3.

CHAPTER IV

STATEMENT OF THE PROBLEM

The problem which this study will address is how to identify and label women's influences on technology. The influences may not be distinct or obvious. If women have had an impact how can that impact be measured?

From Comparato's "Books For The Millions:"

> Thomas J. Cobden-Sanderson, long an accomplished and practicing corporation lawyer, strangely felt the influence of Morris' "arts and crafts" revival. Morris' wife recommended that "C-S" [as he was known to friends] learn bookbinding. "...with the assistance of my wife who sews, and sews admirably, and always from 'end to end' and 'round the bands'." His work was frequently on display, and he began to win wide recognition. Soon Cobden-Sanderson turned out such fresh and perfect work he was credited with establishing a "ninth" style of binding... . [1]

From this passage, taken from page 64, we can query that women have an influence, or impact, upon husbands and sons but all of us are influenced daily by people around us. Everyone has an exchange and an interaction with others that somehow gives spark to an idea or thought or action. In this example it is clear that Mrs. Cobden-Sanderson helped her husband in his binding work and even he

has credited his own wife with the quality of her abilities, of the sewing used for his binding. How can this influence be isolated to credit its original source? How many of the books displayed, which won Cobden-Sanderson recognition and praise, was some of his wife's work as well and perhaps she deserves partial credit in his fame.

Continuing from page 64 from Comparato:

> ... with a small "company" of four fellow workers the Doves "Bindery" [an "American" word apparently new to C-S] thus began in a little "slum" by the Thames. Among the many girls he engaged for their instruction - training three at a time for a 500-guinea fee, Chicagoan Emily Preston in 1902 described her infatuation with the shop. Employees were from the working class except the sewer, "a girl who has seen better days, and has to work," all so capable that C-S "raises them" in his eyes to his own level. She found Mrs. Cobden-Sanderson [with little time now for sewing] a violent socialist, wearing "aesthetic" gowns to reform meetings. [2]

Can we theorize by these quotes that Mrs. Cobden-Sanderson's sewing abilities influenced and assisted her husband's reputation as a quality hand bookbinder and that without her, would the results have been the same. The objective for this study is to find the influences women have had on the technical aspect of the bindery and the above quote has only been used to represent that the

influences of people on technology can be subtle and that this study may encounter more subtle influences than distinction impacts.

FOOTNOTES TO CHAPTER IV

1. Frank E. Comparato, "Books For The Millions: A History Of The Men Whose Methods And Machines Packaged The Printed Word," The Stackpole Company, Harrisburg, PA, 1971, p.64.

2. Ibid., p.64.

CHAPTER V

METHODOLOGY

The strategy of this study was to include historical research for the background and the past perspective of binderies in the Graphic Arts Industry and to conduct interviews for the current Graphic Arts Industry perspective. It is from the historical data that general hypotheses were drawn and from the interviews that more specific hypotheses were established.

The historical research gave a foundation as to when women first began working in binderies. The inclusion of this history gives a more complete perspective on not only who these women were but a look at the changing times and the attitude of society which told women what they could and could not do. An analysis of the historical documents collected resulted in some assumptions, perceptions, conditions and conclusions about the women who worked in binderies and the impact they may have had on the bindery. It is from this history that the theoretical basis for this study was developed.

The historical research was conducted in the Northeast region. Facts and findings are a result from library research and readings, and discussions with peers in the women's studies field, the sociological and anthropological field, and the american studies field, as well as, with friends, neighbors, colleagues and thesis committee advisors.

No manipulation or forced interpretation was made of the historical data collected. No preexisting expectations or goals existed prior to the collection of current and historical data. In anthropological terms, what was just stated is labeled as an inductive approach and a naturalistic inquiry. An inductive approach holds no preexisting expectations of assumptions about a study. No hypothesis was then stated prior to the collection of data. A naturalistic inquiry is one in which no manipulation or forced interpretation of the data was done. The data, historical and current, collected and presented is of non-numerical value and is therefore labelled as qualitative data.

Ethnographic interviews were conducted. "Ethnography is the work of describing a culture. The essential core of this activity aims to understand another way of life from the native point of view." [1] This methodology is used by anthropologists and was used in all of the studies by Mary Van Kleeck for the Russell Sage Foundation. For this study, the methods of James P. Spradley found in his books, "The Ethnographic Interview" and "The Cocktail Waitress" were followed. From the interviews hypotheses evolved. From page 26 of Van Kleeck's lecture, "Investigating Women's Work In Binderies In New York," she described in her methodology, "Remarks of workers show us what to investigate." [Appendix A]

In this study the bindery was the culture and women are the natives of that culture. A native is one who is experienced and knowledgeable in that way of life. The data gathered from these

interviews were analyzed to determine how the informant views the bindery from a woman's perspective, what that informant does on her job, and if that informant has made an impact on any of the equipment found in the bindery she works in.

The use of three informants were planned. Only two were used for this study. One informant from a book publisher and one informant from a small commercial printer. A third informant from a publication printer was unable to conduct all three interviews, and due to time constraints on this researcher's part, another third informant was not sought. Observations from the one interview with the third informant is included in this study. The informants were a female employee from the bindery area. All interviews were conducted in a medium sized metropolitan area in the northeast. Three one hour interviews were conducted with each informant for a total of 6 interview hours. An informant is merely a name given to one who communicates and shares information in their own language. Language here refers to specific words which those persons use. As an example, people who work in the printing industry will have their own language which will not be the same language a person in the banking industry will know or use.

Within each branch of the printing industry and within each department of those branches there will be different languages. An informant then becomes a teacher in the interviews.

The time frame of the interviews was limited to an hour for practical purposes. For each one hour interview approximately ten

hours were needed to transcribe and analyze the data. That would be a total of 60 hours. Plus the 6 interview hours, 66 hours in total were spent for this ethnography.

Cultural themes and world views emerged from these interviews to form a general hypothesis and more specific hypotheses arose with further analysis of the data gathered from each successive interview. World views are assumptions and perceptions which people use to describe the way in which they view their world. In this case, the objective was to discover women's specific assumptions and perceptions of the bindery.

Cultural themes are recurrent themes which become apparent. They give an understanding to the general theme of a culture. The word theme used here is used to identify patterns and that every culture has a set of smaller patterns which are integrated in some fashion to form a large complex pattern.

Each employer was asked to choose the informant on the basis of that informant's knowledge and experience in the bindery and willingness to share their knowledge and experience in an interview. "Enculturation is the natural process of learning a particular culture. Potential informants vary in the extent of their enculturation; good ones know their culture well." [2] Informants who are currently working in binderies were used because according to Spradley current involvement will influence the data collected.

> When people are currently involved in a cultural scene, they use their knowledge to guide their actions. They review what they know; they make interpretations of new events; they apply their knowledge to solving everyday problems. When people stop using some part of their cultural knowledge, it becomes less accessible, more difficult to recall. Informants who leave a cultural scene forget the details and can only remember general outlines of the activities that went on. Most important, they stop speaking the language they once used. When asked about a former cultural scene, they may talk about it but do so using terms and phrases from a different scene.[3]

Interviews were tape recorded with the permission of the informant. Interviews were conducted at the convenience of the informant and the employer. All interviews were conducted on the site of employment with the permission of the employer. Anonymity of all employers and informants is assured. Copies of the transcripts from each interview were given to each informant.

The strategy for the first interview was to begin with the informant giving this researcher a tour of the bindery to gain the informant's perspective of their work place, the bindery. The tour is known as a guided grand tour question in ethnographies. This will give the informant's experience of the work environment. A specific grand tour question was asked and discussed in the

remaining time of the first interviews: "Could you describe your shift yesterday from the time you arrived to the time you left."

Data from the first interview formed the structure and the questions for the second interview. A transcript was made from the first interview and a taxonomic analysis and a domain analysis was done. This type of an analysis isolates terms which reveal the structure of the language which reveal semantic relationships. From these semantic relationships reveal the organization of the culture. Every individual has their own way of organizing their life around them, their beliefs, morals and culture. Analyzing an individual's language reveals this organization. The transcript was confirmed with the informant. The taxonomic charts and the domain analyses were discussed and confirmed with each informant. In the second and the third interview, more specific focuses were discussed.

As part of the conclusions of this study, a general comparison of likenesses and differences of women who worked in the bindery of the past to the women who work in the bindery of today will be done.

LIMITATIONS

Data gathering for this study was limited to a set time frame. All data collected up until May 31 of 1990 was used in this study. The difficulty in finding historical data and the geographical location of this data was a limitation. Costs for this study were kept to a minimum. The time frame of this study has the most impact on the quality of the conclusion of this research. The hypotheses established were not tested.

FOOTNOTES TO CHAPTER V

1. James P. Spradley, "The Ethnographic Interview," Holt, Rhinehart and Winston, NY, 1979, p.3.

2. Ibid., p.47.

3. Ibid., p.48-9.

CHAPTER VI

RESULTS

An ethnography is a methodology used by anthropologists when studying cultures. The bindery can be observed as a culture of its own, and within every culture there are people, a division of labor, a social structure, a social network, relationships and a language.

Let us first take a look at the two women used for this study.

Informant One is currently employed in the bindery of a book publisher. She has been working in binderies for the past eleven years. Upon finishing high school and in need of a job, she walked in "off the street," [1] as she puts it, into a small printing company. "I went in and told them I had some mechanical abilities but I never worked in the print business before." [2] She was hired and taught to operate a sheet fed folding machine. The man who owned the print shop became her peer and teacher. He held no prejudices against her for being female. He felt she was capable and deserved a chance. She has been working in binderies ever since.

Informant Two works at a small commercial printer. It was her mother who introduced her to bindery work about fifteen to sixteen years ago. She, at one job, had a male supervisor who was very knowledgeable with bindery equipment and was a good teacher.

She has followed him from job to job when the opportunity occurred, to continue to learn from him.

> And I actually followed him to continue learning with him. And he himself would quit a job and go work in another place so he could learn another part of bindery. He quit a job and go work with a place that did perfect binding just so he could learn more about it. And, that's basically the way I learned, was watching, asking questions and just learning the job. [3]

On the first interviews, with each of the informants, a tour was given upon the request of this researcher. It was on the tours where an insight into the informants' perspective of the bindery takes a strong hold. It is on the tour, predominantly in the bindery of the book publisher, where a first look at divisions of labor and relationships of the bindery first come into view. The main question asked of each informant, in the remaining time, was to describe in some orderly fashion what occurs on their shifts from the time they punch in on their time cards to the time they punch out.

Since Informant One was interviewed during her shift and Informant Two at the end of her shift, it was easiest to talk about the shifts that day since those shifts were freshest in their minds. In the course of talking about their work, they revealed some parts of their background, previous jobs, likes and dislikes about their jobs and opinions of working in a bindery

and about life in general. This gave a more rounded picture of themselves as not only as someone who works in a bindery but also of how they are as people. And so an objective of these interviews was not only to try to see these persons as bindery workers but also as people. It is from getting to know these women as people that the stereotypes of them as female bindery workers dissipates for these informants.

From Informant One, this researcher sensed right away that she liked her job. She was friendly, helpful and ready to participate in this study. She was lively on her tour and she spoke with a tinge of excitement in her voice when describing each machine. Even after working in binderies for as long as she has, she gave the sense of still being amazed how the machines work and was still amazed at how the final product, in this case hard bound books, are produced in mass quantities in such a short period of time.

What is impressive about Informant Two when she begins to speak is her clear diction and how she thinks about what she is going to say before she says it. She is intelligent, perceptive, caring and patient. She speaks about the machine with a tone of confidence. She, too, showed a fascination with how machines work and revealed her inquisitiveness to mechanics readily. She describes in a clear, simple manner how machines work. She is in the excellent habit of practicing all safety measures and is sure to point them out when around the equipment and when demonstrating.

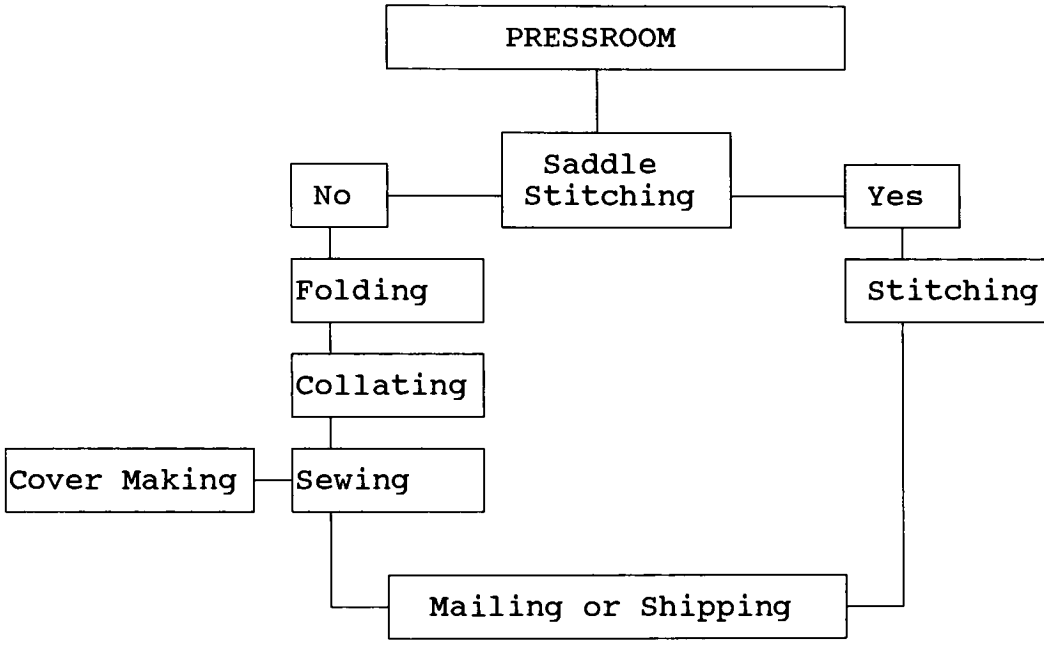
Both informants began their tours with the press room or press area and conducted the tour in the same sequence in which work flows [figure 1]. Both informants had a solid basic understanding of how the printing process works, reflecting not only how long they both have been working in the industry, but, as was seen throughout the tours, how organized and detail oriented both these women were. With the tours, the informants easily stepped into the role of a teacher and this researcher became the student.

There was an immediate change in the informants' manner as we entered a place they recognized, were familiar with and felt comfortable in. The bindery. Their tone of voice spoke with more confidence. Again, both informants began with where a job would begin when it enters the bindery.

> The bindery is one of the most important departments in the printing industry. Because it is the last place that this job is going to be before the customer sees it. That's very important. [4]

This is the opening statement Informant Two used when we stepped a few feet from the press area to the bindery area, and began the tour of the bindery area in this small commercial printer.

Each informant followed the method of taking a sample first, if available, and showing this researcher what a machine did, how it did it and why you wanted it done. Then they would describe the same but showing it on the machine itself. Sometimes the machine



*Book Publisher

Figure 1 Flow Chart* [Taxonomy]

would be in motion, sometimes not. Sometimes Informant Two would turn on a machine and give a demonstration.

It is important to note at this time that both informants had a change in personality when talking about the bindery while away from the bindery. Working with the machines has become habit or second nature, where they just find themselves doing set ups and working on jobs without consciously thinking about what they are doing. One change which took place immediately, is that both informants became more formal in their manner and their speech. The ease which they revealed their knowledge when in the bindery subsided when they stepped into an office or a break area. The easy flow of words without thinking about what words to say to describe the machines, jobs or problems subsided. Particular stumbling with thoughts and words occurred when asked to describe step by step how each of them set up a folder when starting a new job. What was most difficult for each was discussing the steps in order and recalling all the steps. Hands on doing had replaced vocabulary spoken. This supports the importance of conducting interviews with women currently working in binderies as stated under chapter five, methodology. Even as these women were only just far enough so the bindery was out of view during these interviews, their knowledge became less accessible in their minds.

The division of labor amongst males and females can be readily seen in the bindery of the book publisher and was discussed by Informant Two, who works in the commercial shop.

The women working in the bindery of the book publisher follow the history of women in the bindery. The women can be predominantly found in the sewing department, as inspectors at the end of the casing in line and as assistants, who are called production aids in this bindery. The production aid role is one in which they are not permitted to set up or operate any of the machines, but whose responsibility is to assist the machine operators. This division of labor has always existed since the industrialization of the bindery. Production aids feed the hoppers, load stacks on to the infeed tables, and unload stacks off of the delivery ends, and even the real title of the inspectors is production aid. The inspectors sit on tall stools at the delivery end of the casing in line. There are about a half dozen of them and their job is to thoroughly inspect the final book, allowing only the good ones to continue on to packing.

Informant Two tells how in all the binderies she has worked in, the women were always assigned to do the hand work. What is identified as hand work? Collating, padding, inserting, hand folding. She talks about how her mother did hand work such as mailing and labelling. This informant, herself, started out in a bindery doing hand work. When Informant Two was asked why the women were assigned the hand work, her response was, "Well, I

don't know. Probably because women were easier to and cheaper to pay. Easier to replace." [5] Labor is divided in this commercial shop with one man doing the hand work, one woman doing the hand work and operating the easier machines and Informant Two operating the larger, more complex machines.

At the time the mechanical folder was first invented and entered the bindery in the 1850's [6], women were employed to work it and operate it. Under Appendix A, page 31 of Van Kleeck's lecture describes each woman's responsibility in operating an early folding machine. Helpers stacked the feed tables and removed the folded sheets off the delivery end but did not operate the running of the machine. A forewoman was responsible for that. The sheet fed folding machines were initially all run and operated by women. As the folding machine was improved and became more automated, women operators were replaced by men. At the book publisher used for this study, the folder operators were not all women but the division of labor still exists in the same manner as it did eighty to ninety years ago. The women were the helpers and the assistants, not allowed to set up and operate the machines. Setting up is the process of changing and adjusting the machine according to the specifications of each job. In the case of the folding machine, that would include setting the plates at the proper length, setting the deflectors on the plates up or down, setting the tension of the rollers according to the caliper of the stock of

paper, setting the infeed table and the delivery table. Operating is overseeing that the machine runs properly, turning the machine on and off, and correcting problems on the machine.

Division of labor is a natural occurrence in every society. Spradley discusses division of labor as, "But even in the smallest society it is impossible for everyone to work at all the things that need to be done. For this reason every culture contains rules for allocating jobs, every society has a division of labor." [7]

The social structure of the bindery in the book publisher is a formal one. "Social structure is a universal feature of culture. It consists of an organized set of social identities and the expected behavior associated with them." [8] Figure 2 shows the structure of the job titles which exist in the bindery. Figure 3 shows where the women are within the social structure. The women are located at the lowest level of the social structure. The social behavior of the women within this structure is one which Informant One had not followed. Only on the tour had the repercussions of this been obvious. The first interview with Informant One had taken place during her shift. As she conducted the tour through the bindery, most of the employees on the shift, male and female, had looked up out of general curiosity but it was particularly the women who looked on with suspicion. This researcher commented to the informant about the onlookers and she

explained that her co-workers were probably wondering how come the Informant didn't have to work and how and why did she get chosen to conduct a tour.

With her current employer, she was hired as a number one operator for the casing in line. On her first day at work she had realized what that had meant. There are two levels of operators [figure 2]. In this bindery they are labelled as a number one operator and a number two operator. Number one operators are responsible mainly for operating the more complex machines which have a high risk of danger, for example the folder and the casing in line. The number two operators are only operators of "simplified machines" as described by Informant One. Simplified machines are those which only have one function and are simple to operate with a low risk of danger, such as a drill press. Informant One had been hired as a number one operator. She had not been expecting to be hired at the higher level. In this bindery she became the only female number one operator on the casing in line and the first woman to become a number one operator by not working her way up through the ranks.

It was not until after we had toured the sewing department, and we were standing at the beginning of the casing in line that the informant told the story of when she was hired and what that had meant. It was the senior number one operator of the sewing department, a woman, who told this Informant "You're the first woman ever hired as a number one in this company." [9] The

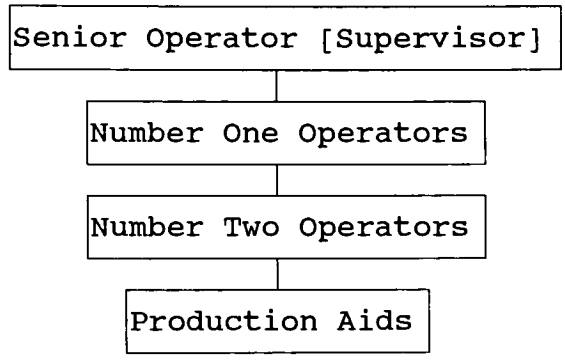
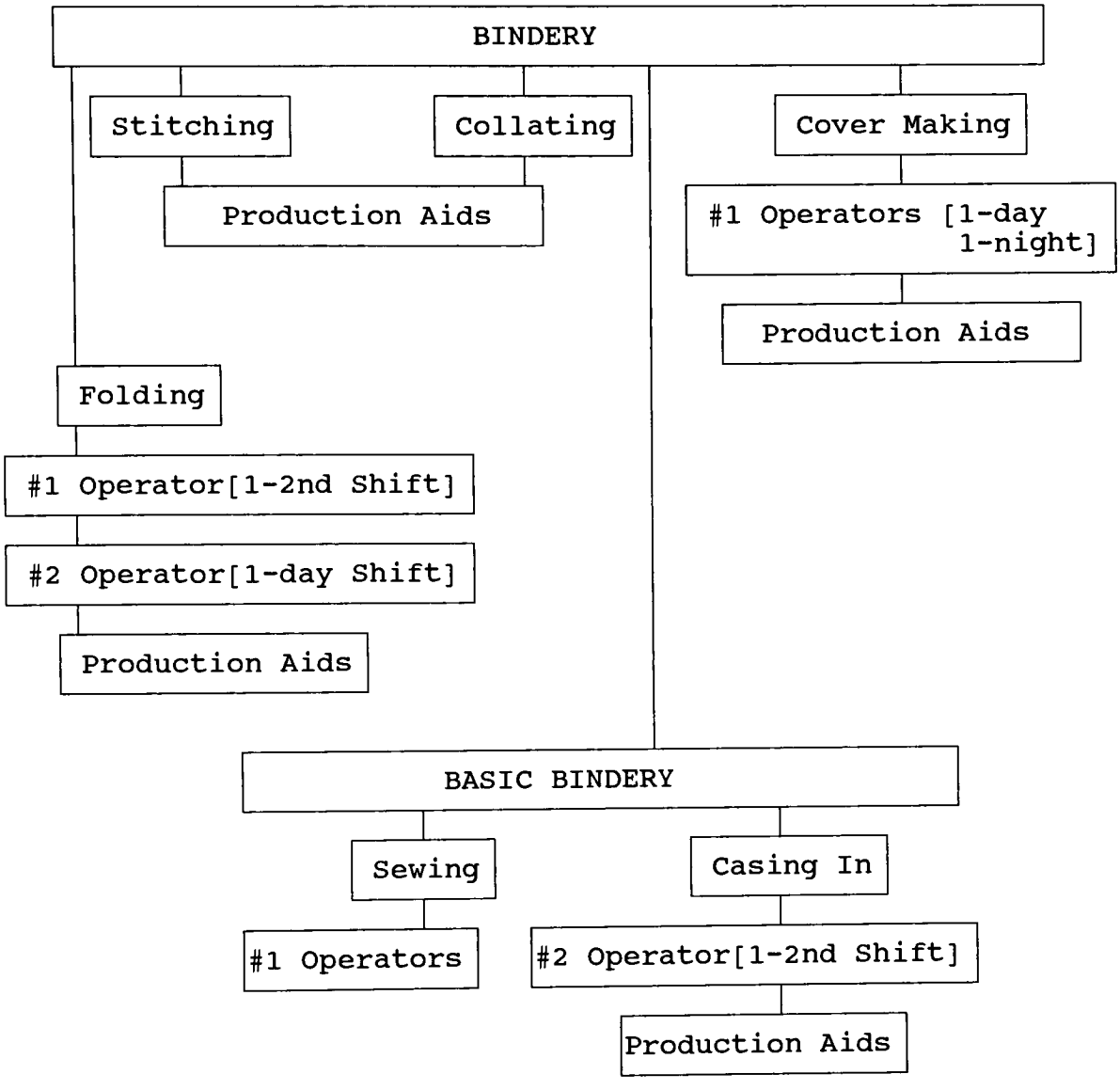


Figure 2 Status Hierarchy in Bindery of Book Publisher



[Note: Women for the most part are production aids throughout the bindery. The production aids in the sewing department are men and the main operators of the sewing machines are women. There are male number one operators in the sewing department on the night shift. In the folding area there is one woman who is a #1 operator on the 2nd shift and one woman who is a #2 operator on the 1st shift. In the cover making area there are two women #1 operators, and in the casing in area, there is one woman who is a #2 operator.]

*Book Publisher

Figure 3 Women* Where they are and at what levels [Taxonomy]

expected behavior of the women within this social structure was to start as a production aid and to move up the social structure from there. Informant One had broken this expected behavior of moving up through the social structure and as a result the other women have regarded Informant One with suspicion. This researcher can only suspect that the women then excluded Informant One from establishing relationships with them or that to establish a relationship with the women might have been difficult. This subject was not pursued in depth.

The expected behavior of the production aids is the most complex in the social structure of the bindery of the book publisher. Informant One used several names to describe the production aid [figure 4]. The expected behavior of production aids in the folding department will only be mentioned here. There are four folding machines in the folding department. They are of different sizes and are not all of the same manufacturers so there are some slight variations from folding machine to folding machine. New operators of folding machines are taught directly by a current operator or are self taught by observing an operator. And so operators are taught common basic methods of operation but they are not all taught the same variations since all operators do not have a common teacher. Operators also make adaptations to their methods to suit their own comfort of running a folder. The production aids are not assigned permanently to the same folder operator, they are rotated. Production aids are then expected to know not only each machine, they must work with each operator and know how each

1. semantic relationship: strict inclusion
2. form: x is a kind of y
3. example: a helper is a kind of production aid

Cover Term:	**Production Aid**
Semantic Relationship:	is a kind of
Included Terms:	Basic Worker Helper Handler Inspectors P.A. Assistant Gopher

Figure 4 Domain Analysis Worksheet

operator's method of working, and they must also use the terminology that each operator uses. The same terminology is not used by each operator. There are various terms to describe folds, and some of the fold terms are also used to describe a signature size. The number of persons, multiplied by the number of folders, in addition to knowing each operator's method of working and language use form a complex expected behavior of the production aids [figures 5 and 6].

Informant One works on the second shift and is the only operator in the folding department of that shift. The same production aid is assigned to her. The social network of the production aids and of Informant One is defined according to assigned job responsibilities.

Not enough time was spent with either informant to study in depth other social structures which may exist and all the social networks which exist. This in turn did not allow any study of relationships. The only observations made by this researcher of the informants in their work environment was only on the tours. Interviews with the informants were conducted in a private room or area.

All the nouns and verbs were isolated from the transcripts of the interviews to show the use of language and to reveal the organization of each informants perspective of the bindery as a culture. Analysis of language reveals the structures of all cultures. The language included under this study represents some of the language of bindery workers, the language of folder operators

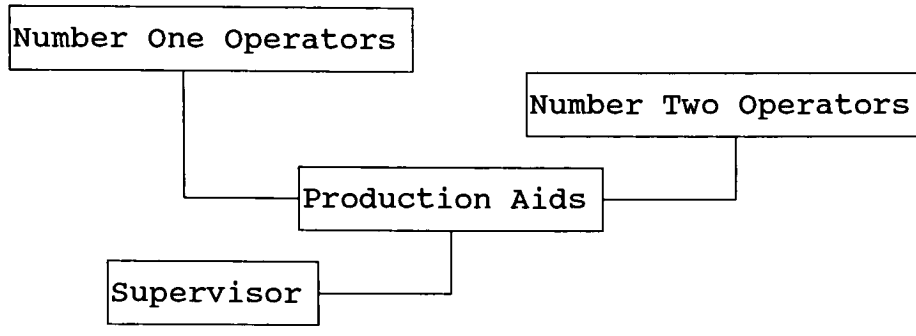


Figure 5 Social Network of Production Aids

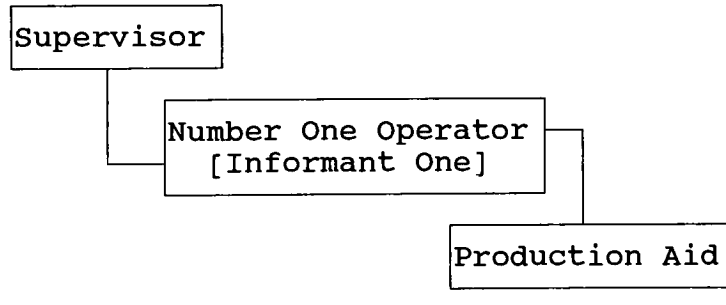


Figure 6 Social Network of Informant One (at Book Publisher)

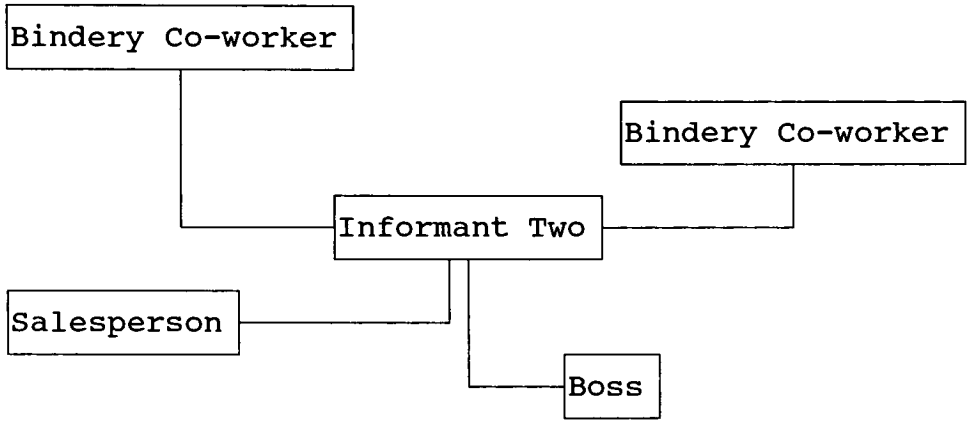


Figure 7 Social Network of Informant Two
(at small commercial printer)

and particularly of the informants. The nouns represent terminology used and are categorized to identify in what references they would be used [Appendix F].

The objective of this study was to establish an hypothesis, or hypotheses, on the impact of women, or a woman, on the technical inventions, developments and advancements that have occurred in the bindery. Conclusions drawn from the information gathered are presented in the following chapter.

FOOTNOTES TO CHAPTER VI

1. Informant One, Interview, April 19, 1990.

2. Ibid., April 19, 1990.

3. Informant Two, Interview, April 25, 1990.

4. Ibid., April 25, 1990.

5. Ibid., April 25, 1990.

6. Joseph W. Rogers, " A Study Of The Replacement Of Hand Processes By Machinery," Master of Science Thesis, Columbia University, NY, 1937, p.36.

7. James P. Spradley, "The Cocktail Waitress - Woman's Work In A Man's World," John Wiley & Sons, Inc., NY, 1975, p.30.

8. Ibid., p.60.

9. Informant One, Interview, April 19, 1990.

CHAPTER VII

CONCLUSIONS

The bindery has a culture of its own. Within every culture there are people, a division of labor, a social structure, a social network, relationships and a language. All of these were discussed in the previous chapter, some only in brief, but together revealed some hypotheses.

When both informants were asked if they felt that women in particular had an impact on the design of bindery equipment the informants were familiar with, the answer was no. They felt that the machines were not specifically built with women specifically as operators in mind. Informant One did feel that the sewing machine was built for women, though she herself has never worked on one. In her opinion because the machine is low to the ground and easy to learn to operate, these two aspects were directed towards women as operators of these machines. There was no further pursuance into this on the part of this researcher, since this Informant could provide no further data on this opinion, and sewing machine operators themselves should be interviewed.

Informant Two felt that both men and women all come in different heights and sizes and felt that all machines were not built with a specific gender in mind. She felt machines were designed and built with only their function in mind, whether it was a press for printing or a folder for folding. She also felt that neither men

nor women were more mechanically inclined than the other. The right attitude, intelligence and mechanical abilities were required for anyone and were not inherent to gender. How well a machine is operated reflected on the operator.

When asked if either informant had made any improvement to a machine or suggested an improvement to a machine, the response was yes by both informants, but the types of improvements were nothing of an exception out of a daily work routine. All machine operators have adjusted their machine, fixed their machine in such a way, which had allowed the machine to run better, smoother or with improved safety. There are times when a machine will breakdown and operators will fix it.

In conclusion of the historical research conducted for this study, no woman, or women, were found to have invented, technically developed or technically advanced any bindery equipment or to have an impact there of. As a result of the interviews conducted, no woman, or women, were found to have invented, technically developed or technically advanced any bindery equipment or to have an impact there of. Based on these interviews with the two informants, the results just stated does not show that this result is conclusive.

Common themes arose from interviewing these informants. Both informants had similar training in their work, they both had similar abilities as required by their work and they both had similar attitudes towards their work. Both women ranked the folder the most difficult machine to operate, of all the machinery which

existed in each of their binderies. Both women agreed, and particularly Informant One discussed, that women were more overall quality oriented but were less productive in comparison to their male counterparts. The male bindery workers then have a higher productivity level but were less quality oriented.

In reviewing both informants' backgrounds, they are both trained as folder operators. To set up, run and operate, including problem solving. They are both mechanically inclined and are self proclaimed to be fast learners. Informant Two learned how to operate a folder by watching how the machine works. One of her early jobs in a bindery was removing the finished pieces off the end of a folder.

> So, I mean, I sat there long enough, so I mean, "Hey, I bet I can set this thing up." You know, no problem. I mean all it does it goes up so far, you set the fold bar, and then it comes out. So I told her that one day. And, "You know this looks awful easy." And she says, "Okay, the next time you do it." So I did! So I've been setting up folders ever since.

> Just by watching the other woman do it?

> Just by watching the other woman do it and also how the machine operates, how the machines work. You have to have some of the mechanical mind I suppose. And mine's just about that far. I have

> a lot of mechanical ability I suppose. Me personally. That's why I don't have very much trouble with machines. [1]

There is no system for training for any machine in a bindery. The method of how you are taught is dependent on who ever is teaching you or that a person teaches themselves mainly by observation of others.

This system of learning is one which has been done by generations of women who have worked in binderies. As Van Kleeck reported [Appendix A], the women had a hard time advancing in the bindery because there were no systems of training women on machines. They were dependent on others to show them or learned by watching others. So as more machines were invented and improved upon, these same machines replaced the women, and left the women to struggle to learn the machines by chance to keep a job in a bindery.

What type of abilities are required to work on bindery equipment? A mechanical inclination is necessary to be able to operate a machine. One has to be perceptive in their mechanical abilities to work with the machine and not against it. If there are problems which require attention, one needs to apply their mechanical knowledge to work with tools, to work with the parts on a machine [Appendix G].

Having a good attitude is always beneficial whether it is applied at the work place or in life in general.

> And then mental attitude. Because the machine will kill you. They've gotten to me before. You can go in there and you'll do all your basic stuff that you... All your mechanical abilities... And the machine still won't run. So you've got to keep an even attitude. Attitudes, I think are very important to machine operators. [2]

A good, positive, healthy attitude helps in working with the machines particularly on those bad days where it seems as though nothing is going right. But the importance of attitudes helps to remain productive also.

> You have to have a productive attitude. So that you'll want to get the work out. [3]

The informants were asked to rank in order of most difficult to least difficult the bindery equipment which existed in their respective binderies [figure 7]. Both informants ranked the folder as the most difficult to operate. When Informant Two was asked why the folder was most difficult to operate, she said, "Because of the variables." [4] The variables which Informant Two is referring to are the number of sections which are detachable, the four plates on each section, the deflectors, the guides, the rollers, and perhaps various attachments such as a perforating or a slitter wheel. The folder is a machine which has the potential to have many parts adjusted, parts moved up and down, or parts moved off and on. With so many parts that have the potential to change, there is more of

Informant One/Book Publisher		Informant Two/Commercial Printer	
1. Folders	[most difficult]	1. Folder	[most difficult]
2. Casing In		2. Collator	
3. Cover Making		3. Cutter	
4. Sewing		4. Drill Press	
5. Stitching		5. Stitcher	
6. Collating	[least difficult]	6. Shrink Wrap	[least difficult]

Figure 8 Rank Order of Difficulty to Operate

a possibility of problems occurring if the adjustments to the machine are not set properly or according to the type and size of paper being run through the folding machine.

An interesting comparison of women and men was made by Informant One.

> Men are more into, what I've noticed, men are more into production, women are more into quality. [5]

This comment was made when Informant One was asked if women were better at operating the sewing machine than men [Appendix H]. Quality is used in reference to the number of sewn signatures which failed to go through the casing in process. Low quality would then indicate a high failure rate. High quality would indicate a low failure rate. Quality also is in reference to the number of books which failed to meet inspection and the number of books returned by the customer. A low quality would indicate a high failure rate and a high return rate, high quality would indicate a low failure rate and a low return rate.

Informant One felt that women were better operators of the sewing machine because she felt women had a better eye for detail to spot if the signatures were being sewn properly and that women were more "picky", as Informant One described women. She was referring to her observations that women had a higher standard of what was acceptable for sewn signatures in the sewing department. Informant One tied this description of women to how quality and women's level

of quality were necessary, almost in reference to being mandatory, for the sewing department because if signatures are not sewn well, the sewn signatures are not likely to make it through the casing in line. This places the sewing department as being a critical stage in the process of finishing printed sheets to form a hard bound book. Informant Two has said that if a problem exists, or a poor job is done, from the first step of a bindery process, that problem will cause other problems or a continually poorer job to be done.

Women, historically, have always worked in this area. It is possible to hypothesize from this that women were intentionally placed in this critical area because of their skill to sew better signatures. It is common knowledge that the process of sewing is always associated with women. Women are taught this skill because it is an expected behavior of women in society.

> Every society takes the biological differences between female and male to create a special kind of reality, feminine and masculine identities. Cultural definitions are imposed on nature, creating a vast array of different identities from one culture to another. Male and female become linked to specific roles, attitudes, feeling, aspirations, and behavior patterns. What it means to be a woman, what it means to be a man - these are intimately linked in every culture. And the sexual identities of

> a society become woven into the fabric of the culture; acquired early in life, taken for granted by most people, they permeate and structure the work place for all of us. [6]

And because of the skills in which women are taught, because it is expected of their role as women in our culture, it is possible to theorize that men have placed women in the sewing area because she requires little training for the work to be done where as men have little to no training to do sewing. It may not only be convenient for women to be placed in the sewing area because they have the skill but also because this skill is already developed, making women more qualified and better able to do this specific type of work.

An observation must be pointed out that as, in general, women are better capable of doing certain skills such as sewing, it has not been discussed whether women naturally perform this skill adeptly or that women perform this skill adeptly as a result of society's expecting her to learn the skill of sewing and to learn it well.

And to take the same thought further and to apply the same theories to the folding, collating and the inspecting areas. Informant One continues her observations about the women in sewing to the women who are inspectors at the end of the casing in line. The women scrutinize each book more than a male inspector would.

So perhaps another question should be asked. Why do so many women work in the bindery? This study opened with re-telling how women worked in binderies because it was one of the few places women were allowed to work in. But today, women have more of a choice as to where they can work. Can an observation be made that women continue to work in a bindery because it is a place where women can readily apply and use skills which they already have.

Both informants used for this study have a very positive attitude about themselves and their work. They take pride in their work, and enjoy taking a part in producing a product in which their contribution can be seen. This researcher observed in the bindery of a publication printer, who could not participate in full in this study, that all the women held this same positive attitude. It is the positive attitude, social skills and chance to contribute to a team combined which may be drawing women to work in a bindery in large numbers. It is rewarding to anyone to immediately see the results of their work and efforts in a physical product.

The perception of women who work in a bindery today must be corrected and updated from the perceptions of women who have worked in binderies historically. The women observed and interviewed for this study were intelligent, yet had no higher education, mechanically inclined with no formal training, proud of the work they do, enjoy the work environment they are in, take a strong interest in what goes on in a bindery and very strongly express that they, too, deserve not only equal pay for their work, but

equally important, deserve equal respect as their male counterparts receive. Have women been barred from the press room and other areas of the graphic arts industry due to the wrong perceptions?

Since it has been theorized that women are more concerned with the quality of their work and men are more concerned with the productivity level of their work, it would seem by having both men and women working in a bindery together at strategically placed tasks, that a bindery is most efficient overall with such a set up.

The following are hypotheses which have emerged as a result of this investigation.

1. a. Women have long been assigned the task of sewing in a bindery because women are more adept to the skill of sewing than men due to factors such as cultural heritage, socioeconomics, and stereotypes.

   or

   b. The number of sewn signatures sewn by women will meet or excel bindery specifications more so than the number of sewn signatures sewn by men.

   or

   c. Signatures sewn together by a woman will have a longer life span with normal use than signatures sewn together by a man.

   or

   d. The number of sewn signatures sewn according to specifications which meet these same specifications will be

higher for a female sewing machine operator than for the male sewing machine operator.

2. a. Women have long been assigned the task of collating in a bindery because women are more adept to collating due to factors such as cultural heritage, socioeconomics, and stereotypes, than men.

or

b. The number of signatures collated correctly in the proper sequence, without any missing, by women will be higher than the number of signatures collated with the same requirement by men.

3. a. Women have long been assigned the task of folding in a bindery because women are more adept at folding than men due to cultural heritage, socioeconomics, and stereotypes.

or

b. The number of signatures folded according to specifications which meet these specifications will be higher for the ones done by women by hand than done by men by hand.

or

c. The number of signatures folded according to specifications which meet these specifications will be higher for the female folder operator than the male folder operator.

The above hypotheses are based on sewing, folding and collating by hand or by machine.

There are many recommendations for further study as a result of this study. In general, the area of women in the bindery requires more research both historically and currently. For women who currently work in binderies their contributions and activities need to be documented. More specifically the hypotheses stated should be tested. By testing these hypotheses stated will verify if women are indeed more quality oriented than men and further investigation will need to be done as to why this is so, if they indeed are. A full ethnography of women, perhaps just in one bindery, should be done. A book bindery is recommended because the social structure and social network can be readily seen. This structure and network reveals the same structure and network established and followed historically. A minimum time frame of a year is recommended to allow a substantial time frame for an in depth and complete study to be done. The ethnography done for this study did not provide an in depth study of any one aspect of women in the bindery. It only provided a general view with specific recommendations stated here. The initial objective of investigating the impact of women on the bindery equipment and technology is recommended for further study and the methodology recommended is by an anthropological method called anthropomorphical.

The method of ethnographic study used in this investigation allows not only an understanding of the people in a culture but provides a better understanding of ourselves as participants within a culture.

FOOTNOTES TO CHAPTER VII

1. Informant Two, Interview, April 25, 1990.
2. Informant One, Interview, April 26, 1990.
3. Ibid., April 26, 1990.
4. Informant Two, Interview, June 12, 1990.
5. Informant One, Interview, April 26, 1990.
6. James P. Spradley, "The Cocktail Waitress - Woman's Work In A Man's World," John Wiley & Sons, Inc., NY, 1975, p.144.

APPENDICES

APPENDIX A

INVESTIGATING WOMEN'S WORK IN BINDERIES IN NEW YORK

One of seven lectures given by Mary Van Kleeck at
the student conference of the
Young Women's Christian Association
Silver Bay, Lake George
June 24th to July 4th 1910

LECTURE II

INVESTIGATING WOMEN'S WORK IN BINDERIES IN NEW YORK.

A Discussion of Methods of Investigation.

The shirtwaist makers, whose problems became so prominent last winter, are only a part of the large group of makers of women's clothing. Makers of women's clothing are only a part of the much larger group whose work comes under the Census heading "Manufacturing and Mechanical Pursuits." These "Manufacturing and mechanical pursuits" form only one of the five large groups of occupations in which the five million women wage-earners of the country are employed. Obviously women's work in the United States presents not one problem but, we may almost say, as many distinct problems as there are occupations, and as many problems in each occupation as there are communities in which it is carried on.

As the shirtwaist maker, the milliner, the bookbinder, and the cigarette maker differ widely, the investigator ought to study them separately, each in relation to her own trade, and her own community.

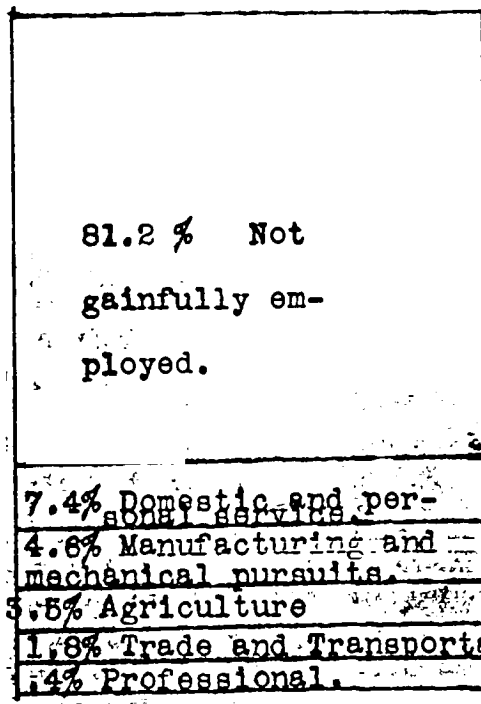
Nevertheless there seems to be a fundamental resemblance in conditions, and a subtle relationship binding together all parts of the industrial world. This relationship is exemplified when a wave of prosperity or of industrial depression passes over all the business of the country affecting in a similar way all the groups of wage-earners. The relationship is exemplified also in the problems of women's work. The welfare of women workers depends very largely on the number of occupations open to them, their freedom of choice, their ability to share directly through the wage system in the wealth of the country. Therefore a survey of all occupations is necessary to give background and significance to the study of a single trade.

If you have looked over the books in the reference library, representing the most recent and authoritative information obtainable you will realize how little we know of the welfare of women. workers. Therefore it seems most profitable to devote this lecture to a discussion of possible methods of gathering facts. The census is our chief source of information for the general survey, while the description of a method of studying one group is based on a recent investigation of women's work in binderies in New York.

The information which the census contains may best be given by map and charts. We may learn from them how many women work for wages, how many are employed in different occupations, how the numbers have changed in different census years, what their ages are, and where they were born. In the group of manufacturing and mechanical pursuits, which we call in this course "the trades," we may ascertain also what proportion are at work in the various sections of the country, how many in each industry are employed in each month, and what wages they are earning in a week of maximum employment.

I.

What Women In United States are doing.



U.S.Census, 1900.
Occupations p. LXXIV

In every group of a thousand women, ten years of age and over in the United States in 1900, 188 were wage-earners. Of these 188, 74 were employed in domestic and personal service, 46 in manufacturing and mechanical pursuits, 18 in trade and transportation, and 15 in professional service. ~~In England of every 1,000 women are wage-earners, in Germany , in Victoria , and in France~~ . There is a marked difference between different sections of the United States. In New York City, there are 271 women wage-earners among every thousand women in the population. In Chicago there are 232 ; in the western states there are 145; in New England there are 221.

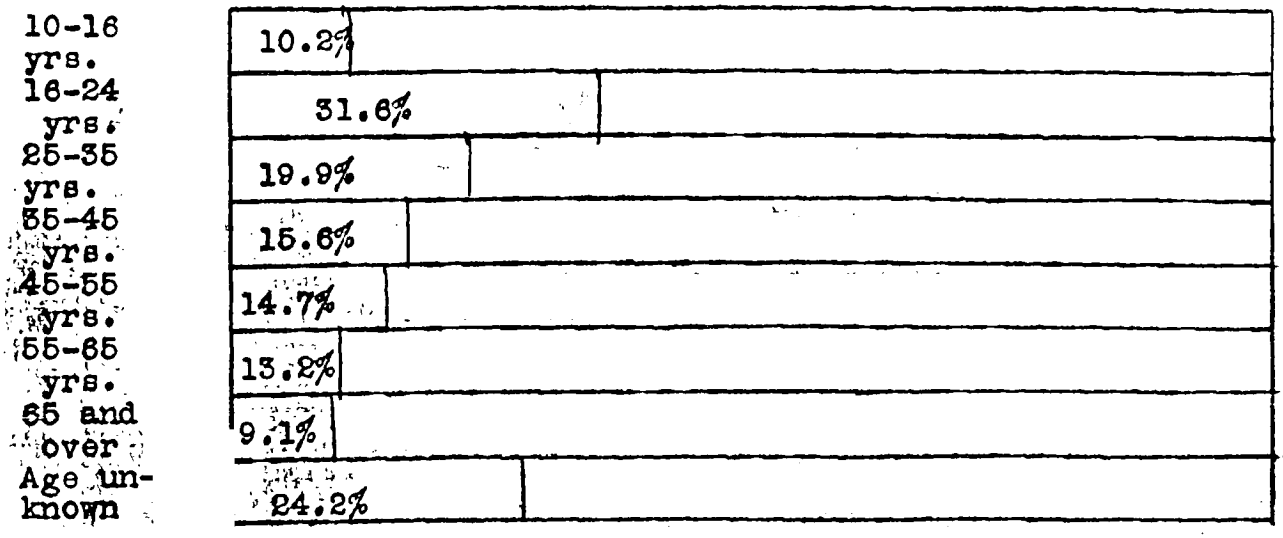
II.

(See next page for diagram)

While the actual number of women wage earners increased from 2,647,157 in 1880 to 5,319,397 in 1900, the proportion of every thousand in the population changed only from 147 to 188. The change in the relative importance of the different groups was more marked, trade and transportation, that is clerical work, typists and stenographers, saleswomen, etc., showing the largest gains.

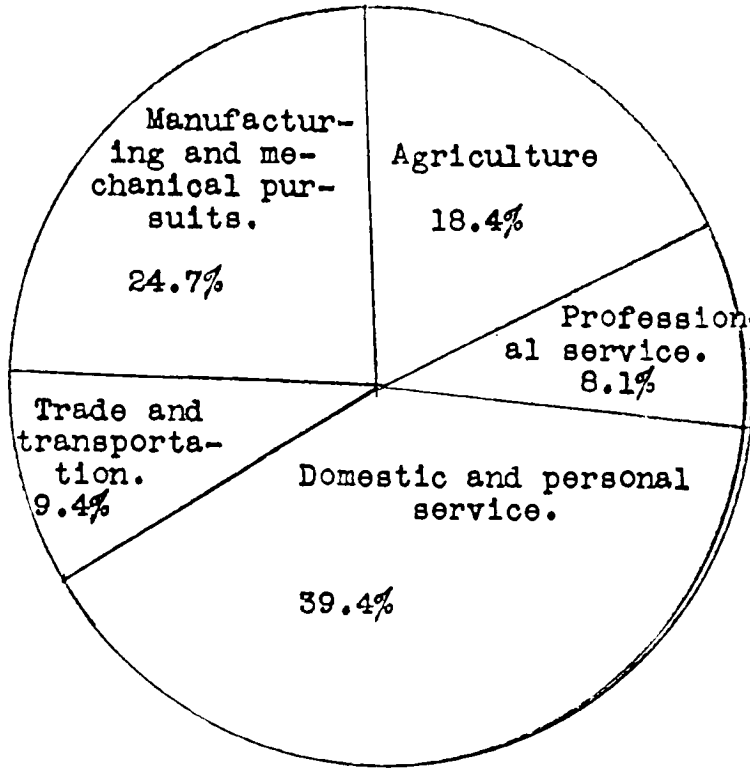
III

Proportion of Women Wage-earners in each age-group.



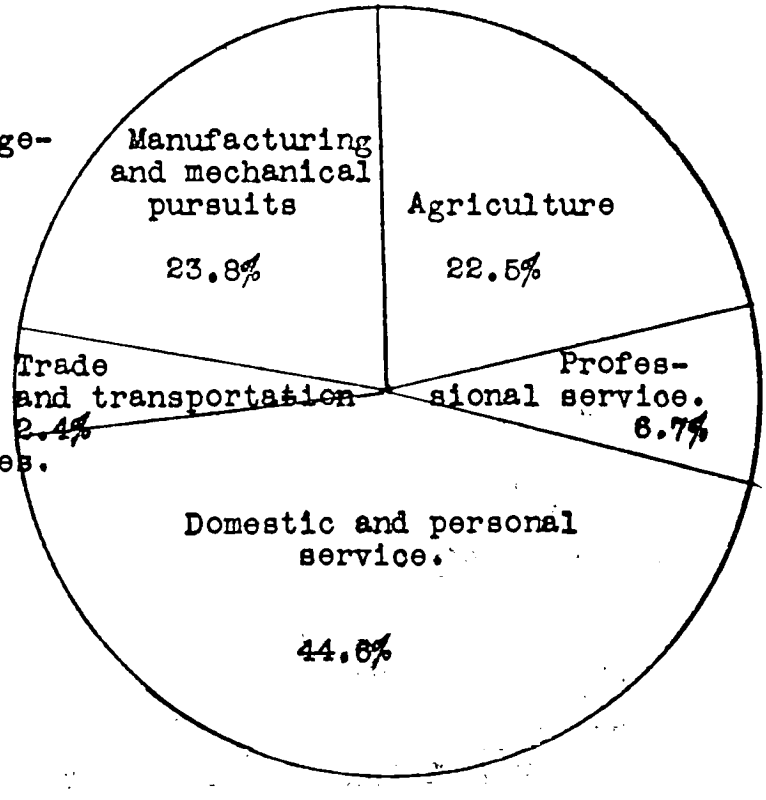
U.S.Census. 1900. Occ. p. CXVIII

Proportion of wage-earning women in each of the five classes of occupations. 1900 United States.



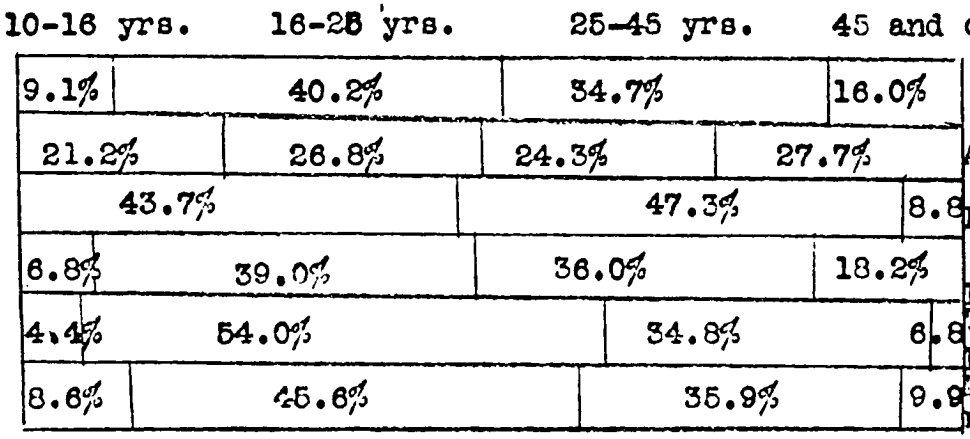
U.S.Census 1900. Occupations.
p. XCVI

Proportion of wage-earning women in each of the five classes of occupations. 1880 United States.



Ibid. p. XCVI.

The Ages of Women Workers United States. 1900.

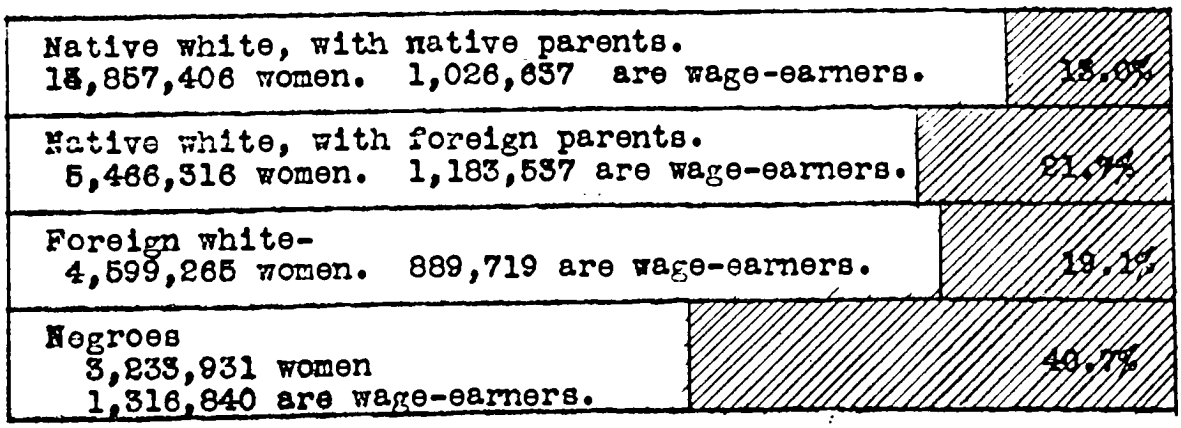


U.S.Census 1900 Occu. p. CXIX

In 1900, nearly half of the women gainfully employed in the United States were under twenty-five years of age, while in "manufacturing and mechanical pursuits," in the factories, 54.2% had not yet reached their twenty-fifth birthday. Of all the women in the land, over twenty-five years of age, only 16.1% were gainfully employed.

XV

Nativity of Women Wage-earners. United States 1900.



The smallest proportion of wage-earners is found among the native white of native parentage.

It is in the group called "manufacturing and mechanical pursuits" that we find centered many of the most pressing problems of women's work, for example, overtime work, subdivision of labor, speeding up of machines,

irregular employment, and low wages. Together with "professional service" and "trade and transportation," factory work is gaining in importance as an occupation for women, while "domestic and personal service" and "agricultural pursuits" are decreasing in relative numbers. Of the women wage-earners in all occupations in 1880, the proportion employed in factories was 23.8%; in 1900 it was 24.7% In the twenty years between 1880 and 1900, the actual number of women factory workers increased from 631,034 to 1,312,668.

A map will show in which states the problem of factory work is, numerically speaking, largest.

V

Proportion of Women Factory Workers and their Wages in Different Sections of the United States.

(Also proportion per 1000 in population.)

Proportion of all factory workers in		Wages.	Proportion per 1000 in population.
New England (Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut)	20.5	$8.87	118
Southern North Atlantic. N.Y., N.J., Penn.	35.7	6.23	77
Northern South Atlantic Del., Md., Dis. of Col. Va.- - West Va.	4.6	4.82	35
Southern South Atlantic. North Carolina, South Carolina Georgia, Florida	4.7	3.99	"29
Eastern North Central Ohio, Indianna, Illinois, Michigan, Wisconsin	18.5	5.60	40
Western North Central Min, Ia, No., N.Dakato, S. Dakota, Nebraska, Kansas	7.4	5.79	27
Eastern South Central Ky. Tenn., Alabama, Miss.	3.5	4.67	17

Western Sout Central La. Ark. Ind. Terr., Okla. Texas. - - - - - - - - - - - -	1.9	4.73	18
Western Division Montana, Idaho, Wyoming, Col., New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California - - - - - - - - - -	-3.2	7.17	30

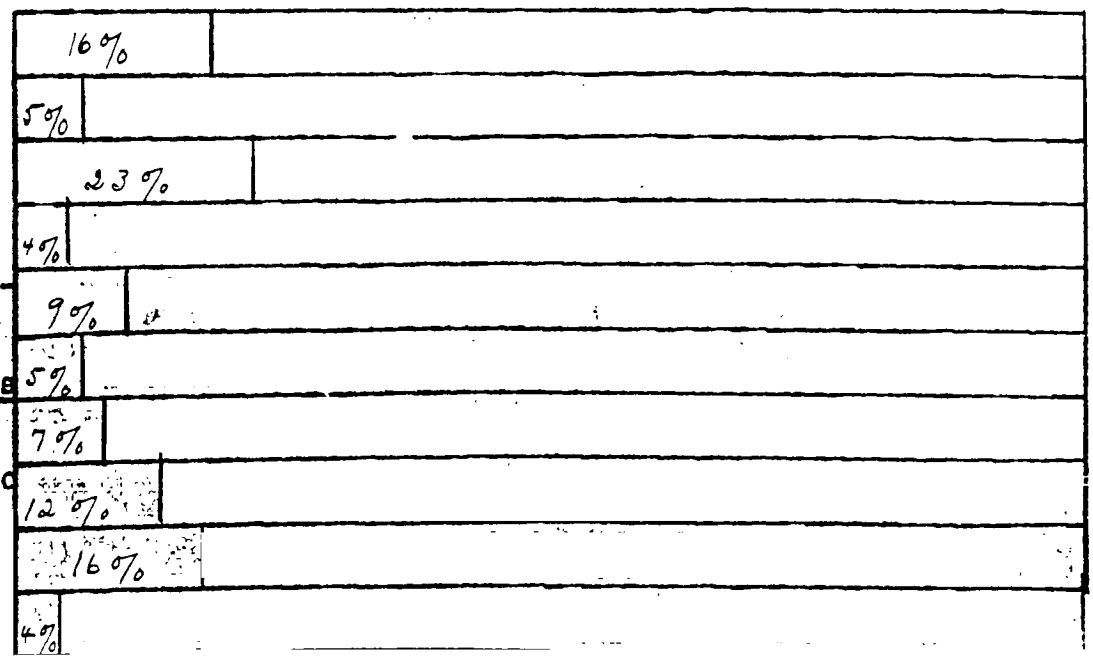
The problem is largest around New York, large in New England, large in Chicago, while it decreases in importance as we travel west. On the other hand, we may regard its presence in the west, as the beginning of a growth which may in time be as momentous as in the east.

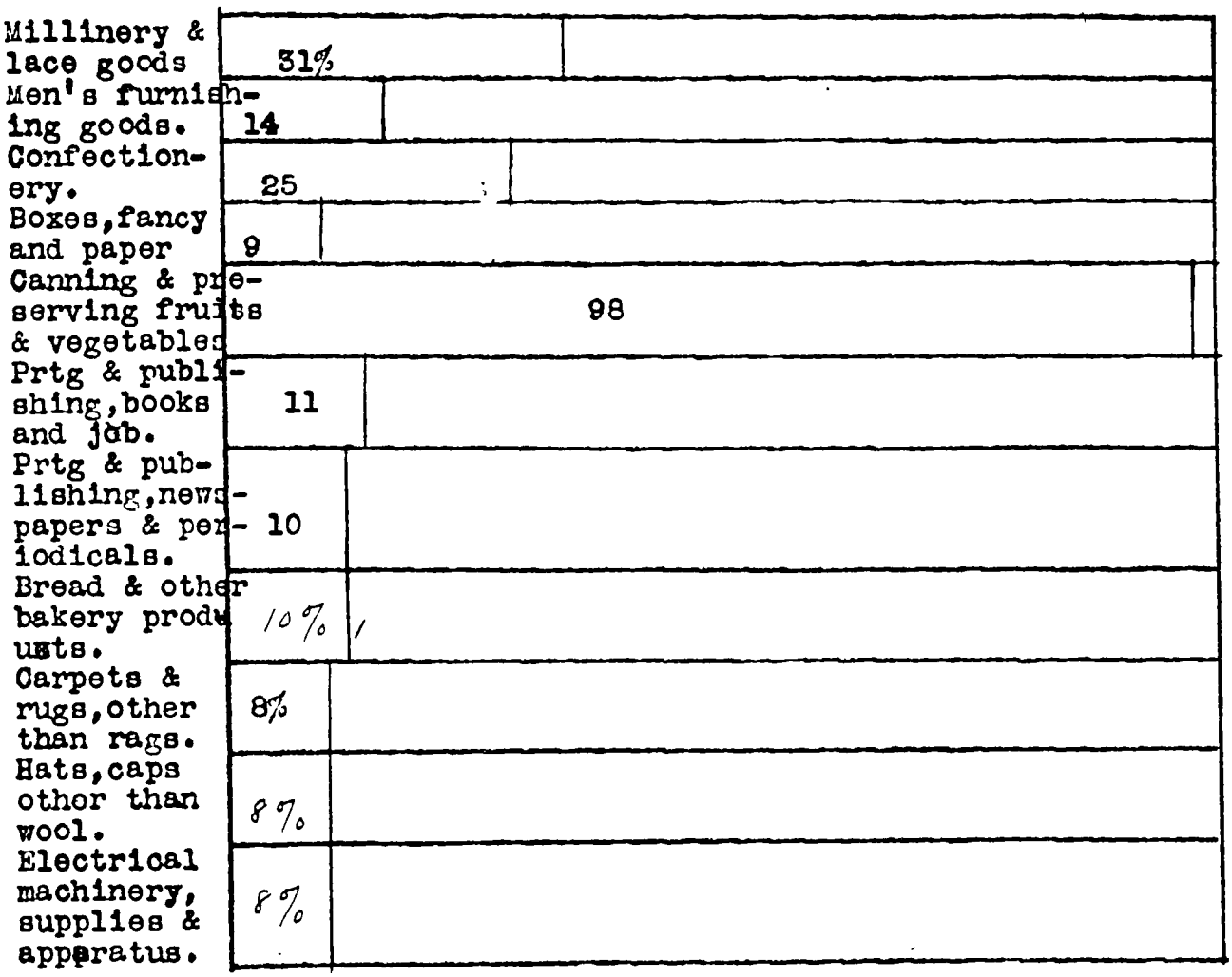
Many of these industries are seasonal. It is the fate of the workers to be without work or wages. The Census enumerators regord the numbers employed in each month of the year in manufacturing establishments, but it is obviously impossible to give a general summary of the facts for all industries. The figures in trades having different seasons would counteract each other. The fluctuations can be shown, however, for a few of the more important trades.

.VI.

Seasons in Women's Work in Factories.

Proportion laid off in the slackest month in each trade.
(Industries employing more than 10,000 women. U.S.1905. Mfrs. Pt. I.)

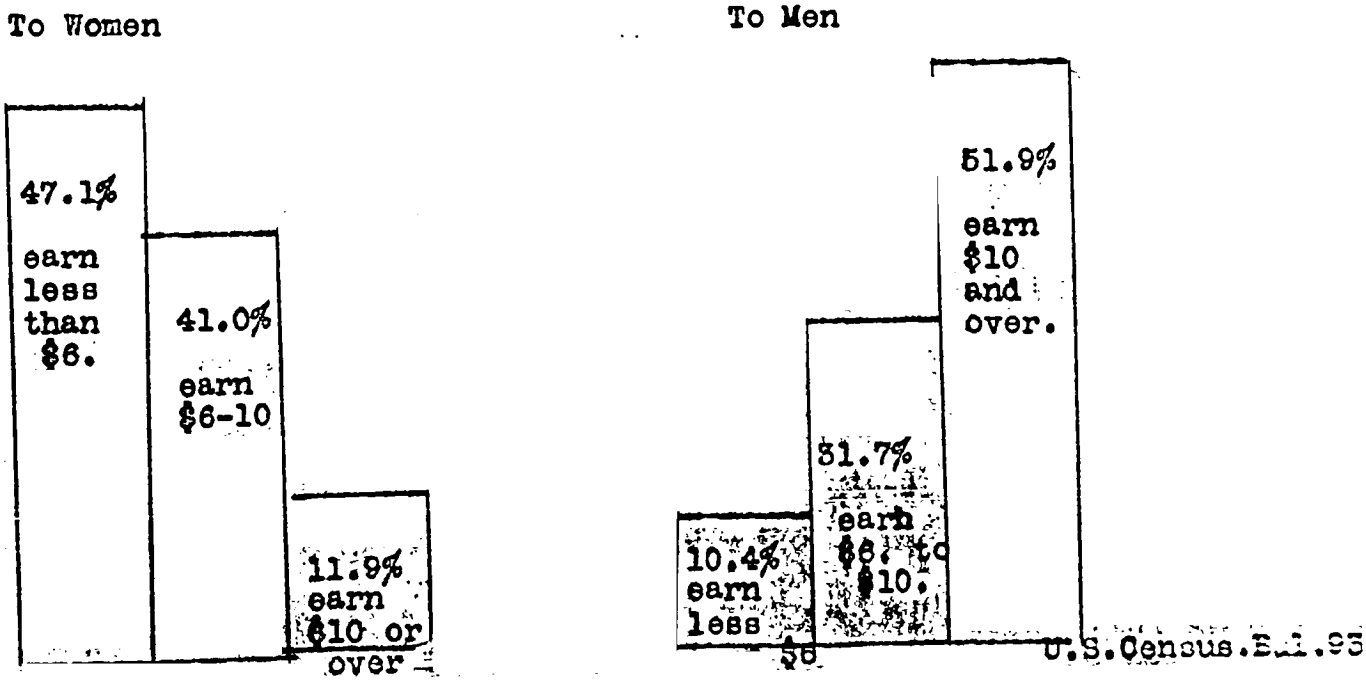




Nor are the wages sufficient to compensate for loss of time.

VII

Weekly wages paid in factory work in New York.



Only one woman in every nine has a chance of receiving a weekly wage of ten dollars or more in the busy season while one in every two receives less than six dollars. Among men the proportion is almost exactly reversed. Only one in ten is condemned to a wage of less than six dollars, while one in every two receives ten dollars or more.

Why? That question cannot be answered fully without an exhaustive and detailed study of the economic position of women in many occupations and in many communities.

I must confess that I am glad if these figures have seemed colorless and dull to you. For, if so, you will the more easily be convinced of the necessity for more detailed study. Such large statistics tell us very little about the welfare of women workers, nor do they serve as a guide for any program of improvement. They may be chart and compass, but the voyage of discovery is still ahead of us.

The difference between the general survey and a detailed study is illustrated by the results of an investigation of women's work in binderies in New York. Remarks of workers show us what to investigate.

"I would never advise a girl to go into bindery work," said a woman of twelve years' experience in the trade. "The machines are hurting it. They have automatic machines that run of themselves. One machine can do both folding and stitching. A boy can look after it."

"The bindery trade is not what it used to be," said another. "The machines are driving the girls out. The handfolding is dreadful. The girls who do that are always out of work. They only get the work which the machines can't do."

"It's hard to get a chance to learn the trade," said a young girl."After showing you once you are not taught anything more. You have to pick it up by watching the others and taking your chance at the

machines."

"We can't bother with learners," said an employer. "Rents are too high."

"All our work is rush work," said another. "We use machinery and have no time for learners."

"We prefer to take learners and teach them," said another, "because our work is very particular."

"It was awful slack where I learned," said a bindery girl. "I never could count on my wages. It would be overtime like Tuesday and Wednesday and then laid off till Monday. Sometimes I earned less than two dollars a week."

"You never know when you're going to have work," said another.

"Overtime is another bad thing about bindery work," said an experienced worker in the trade. "For days you'd sit doing nothing, and then when you had work you'd kill yourself."

"When there's work to do the bindery doesn't trouble about the law," said a forewoman in a bindery where the girls had worked all night so that a magazine might be bound in time to mail in the morning.

"Binding is hard work," said the same forewoman. "You must feed in a thousand sheets before you make fifteen cents and then ten thousand before you make a dollar and a half, but if you make a good day's pay you don't care how hard you've worked."

"We pay them as little as we can," said an employer.

"Don't you know that six dollars is the market price of a woman?" said the owner of a successful bindery.

Remarks like these raise questions which cannot be answered by the census figures. The investigator is compelled to gather facts by actual contact with trade conditions, by watching the girls at work, and by interviewing employers and workers. Statements such as those which I

have quoted, indicate that changes are going on rapidly in the bindery trade; machines cause a reorganization of the work and then give place to new inventions; speed seems to be the most essential requirement; hours in rush season are very long; irregularity of employment depresses wages; specialization seems inevitable; for any worker to practice the whole trade is almost impossible.

These are working hypotheses. To study the effect of such conditions on women workers an investigation was undertaken by the Alliance Employment Bureau of New York. The Bureau's work is to find employment for girls and boys in trades and in offices, to investigate conditions, and whenever possible to use its influence to better them. Its immediate purpose in investigating the bookbinding trade was to gather facts as a basis for finding suitable employment. Its second object was to make these facts public as a means of arousing interest in improving conditions.

The investigation was based almost entirely on interviews with employers and with girls at work in the trade. The record of one of these girls will best illustrate the sort of information which we were seeking and the method of securing it.

We shall call her Mary Brown and give her address as 142 Greenwich Avenue, New York, third floor, back, south. Her story was recorded on a card, five by eight inches in size. The chart shows it enlarged.

She had left the fifth grade of a public school in 1904, three years before she could have graduated. She had been enrolled in a public evening school in two successive winters, once in the "regular course," and once in a dressmaking class, but she did not stay through the winter in either class. She went to work at the age of fourteen working a year and a half as cash girl in a department store receiving a weekly wage of three dollars at first, and later three dollars and a half. Her sister who had worked in the same store found the "job" for her. She left be-

cause there was "no chance to advance."

A friend found her work in October 1905, in the Western Bindery, where large editions of books were bound. As a learner, she folded sheets by hand and emptied boxes. The other girls showed her how to do the work. There was no definite time of learning. In three years and a half, however, she had had no opportunity to learn to operate a machine, and her weekly earnings had been increased only from three dollars and a half to five dollars and a half. Her employment had been steady during the past twelve months. In the preceding year she had been without work or wages two weeks when the firm had moved.

Her grandmother was the head of the household. The mother was dead, and the father had deserted his family. Every member of the family had been born in New York. There were five girls at home, ranging in age from twelve to twenty-two years. The other wage-earners were three sisters. One was a learner in a bindery, earning three dollars and a half a week. Another worked in a hotel laundry earning seven dollars a week. The third was out of work at the date of the visit. She had been working in the laundry but the steam had made her ill. The combined earnings of the three girls who were at work were sixteen dollars a week. An uncle sent them ten dollars a month. The grandmother, although nearly blind, did the housework, and managed to make ends meet.

The six members of the family lived in four rooms in a tenement built since the New York housing law has demanded a certain minimum of light and air.

Mary gave all her earnings to her grandmother, who returned to her small sums needed for clothes. She walked to work and carried her lunch, so she spent no money for carfare or lunches. She was a member of the Roman Catholic Church. She belonged to no club, nor had she joined the union in the bookbinding trade. She had never applied at the Alliance Employment Bureau. Her name had been given to the investigator

by another girl employed in the Western Bindery. The investigator visited Mary's home in the afternoon and made an appointment to return in the evening to talk with the two bindery girls in the family. In the same visit, a similar record was secured of the trade history of Mary's younger sister who was a learner in the bookbinding trade.

Both gave the information willingly, when the visitor had explained that in this way they would help the Alliance Employment Bureau to advise other girls about their work.

The facts which each girl gave about the Western Bindery were recorded on another card and filed under the name of the bindery. Mary's chief work was to empty the boxes into which the folded sheets were dropped by the machine. Frequent stooping was necessary and the work was very tiring. She had been fined for being late but she was only scolded, not fined, for spoiling sheets. Her work had been steady. Her working hours were from eight in the morning until four thirty at night with a half hour at noon, eight hours daily, forty-eight weekly. In summer she worked from eight until five-twenty, in order to stop work on Saturday at twelve. She had worked overtime once only, and then not later than seven o'clock, a ten and a half hours day. She had never taken any work home.

There was no lunch room. The girls ate their lunches in the workroom, and made tea on a gas stove in the dressing room.

A month later the investigator visited the bindery, and asked questions to verify and supplement the information given by the workers, concerning the kind of work done by women, weekly wages, training of learners, desirability of trade school training, methods of securing workers, seasons of employment, hours of work, overtime, homework, and the conditions of the workroom. The facts are recorded on the accompanying card. The visit was particularly helpful in making clear the

organization of the force in this bindery.

It is called an edition bindery. That is, in it large editions of books are bound by machine. It has no publishing or printing department. The sheets brought from printing offices are piled on shelves in the centre of the loft. When needed for binding they are placed in a machine which cuts them to the size required for folding.

The different methods of folding the sheets, a work done entirely by women, illustrates changes going on in the trade. They may be folded on one of the six "point" machines or placed in the "automatic" or, very rarely, folded by hand. In the first case, girls sitting on high stools feed each separate sheet into the machine, placing the printed dots on the needle-like points which serve as guides. The learners, among them Mary Brown, take the folded sections from the boxes and "jog" them straight on tables. If they are to be folded by the automatic machine they are stacked under two rubber knuckles which push them toward the folding rollers. The forewoman, in addition to her other work, keeps watch to see that the folding is properly done, but no handwork is required except to pile the sheets under the rubber fingers, and to lift the folded sections from the boxes into which they are delivered. Between the "point" machine and the "automatic" was another invention not found in this bindery. In it the "points" gave place to automatic guages, and the women who fed it need only flick the sheet from the pile so that the machine could grip it. By dispensing with the points on which each sheet must be fitted, much time was saved. Obviously the next step was to supply an automatic feeder.

Plates or maps must now be pasted in. In this process, the hand-workers are still in the ascendency because the pasting machine is still on trial and only one is used. The six girls employed to paste, do also the hand-folding, when there are sheets which do not fit

the folding machines.

The next task is to gather the folded and pasted sections in order to make the volume. They are placed on a table in piles and the gatherer walks up and down taking a section from each pile until the book is complete. Then she compares it with a model volume, and marks it, thus making herself responsible for any mistakes. This is called collating. Sometimes the gathering is done by one set of girls and the collating by another . There is a gathering machine on the market but this bindery has not purchased one.

All the sewing is done by machines. Four girls are employed to feed them, and each has a helper, a learner, who cuts the thread between two volumes. This completes the work of the women's department. They take no part in the various manipulations called forwarding, that is, getting the book ready for its covers. In the finishing department, where the covers are made, ornamented, and attached to the volumns, three girls are employed to lay the gold leaf on the cover and clean it it off after ~~af~~ has been stamped. Three others examine and wrap the completed volumes for shipping. The number of men and women employed in the whole bindery are about equal.

It was through interviews like these that facts regarding the trade were gathered.

The names and addresses of 403 girls employed in binderies in Manhattan were secured from the Alliance Employment Bureau's records of applicants, from girls' clubs and similar organizations. It was necessary to make 609 visits to secure records of 205 workers. Some of the 403 were not found at the addresses given. Some had never been employed in bookbinding. Others had left the trade and remembered very little about it. The girl at work during the day can be interviewed only in the evening and this makes the accumulation of workers' records a very slow task.

In order that there might be every opportunity for full and frank discussion, the record cards were not filled out furing the interview. The chilling effect of talking to someone who records all remarks will readily be appreciated.

The most common obstacle to securing information from the workers is a faulty memory. A girl who has wandered from bindery to bindery or from trade to trade, has forgotten many interesting and important facts, partly because she has never regarded them as either interesting or important. Many of our records contain the phrase "Can't estimate," or "Can't remember," particularly regarding the length of time a position was held, or the time lost in a year. "I've been in 99 different binderyes," said one girl, "and I can't remember them all.

Yet even with all its difficulties, this first-hand vital information cannot be dispensed with in any accurate study of the welfare of women workers. Tests of adcuracy are possible, the consistency of a girl's story, repetition of important facts by other workers, comparison with information secured from other sources, such as the Census, and finally interviews with employers.

A streetm directory of names and addresses of binderies was compiled from as many sources as possible, including the Alliance Employment Bureau's records, business directories, and all advertisements for bindery workers in the New York World during six months. The difficulty of compiling a complete list evenm in a single borough of New York is an illustration of the interlocking of occupations. Bindery departments were found in lithographing establishments, in printing offices, in publishing houses, in sample-card factories, or evenin in so unexpected a place as a wholesale store, whose trade catalogue was bound on the premises.

To secure complete information in many cases was almost impossible. The difficulties were due not only to a lack of interest or anta-

gonism on the part of the employer, but more to indefiniteness of conditions. All workshops are not the well-organized establishments which we are accustomed to think of as the industrial types of the present century. "It depends on the orders," "It depends on the run of the work," are answers to questions regarding wages, seasons, or hours of work. Chaotic differences in organization are found not only in different establishments, but, from day to day, in the same establishment. But tests of accuracy were possible here also. For example, the fact that the girls investigated had been employed in nearly fifty per cent of these binderies enabled the visitor to weigh the value of statements made by employers and by workers.

What is the relation of these slowly-accumulated records of interviews to the solution of such problems as overtime work, irregular employment, low wages, and the education of workers? Is social research a necessary factor in the development of community action for the improvement of social conditions? Is a discussion of methods of investigation an essential part of a study of the problems of women's work?

The possible relation of social research to community action is at present somewhat problematical. We shall not be able to discuss it fully until we shall have described other investigations, and discussed means of improvement. But, to-day, it is important to complete the description of the investigation of one trade by showing what facts were discovered by the inquiry. We shall be handicapped by the fact that the value of such a study consists largely in its detail, and that space prevents our giving more than a summary. The data presented ought to show the organization of the trade, and its branches, the work of women, the influences affecting their employment, the hours of labor, the seasons, the wages, and the home responsibilities of the workers.

The bindery which we have described is only one establish-

ment in one branch of the trade. Conditions differ in these branches. Oldest of all is the "job" bindery where books are bound by hand using methods dignified by centuries. Larger and more modern is the edition bindery where machines turn out books by the thousands. Finally there is the pamphlet and magazine bindery where the fine art connected with finishing covers is entirely omitted and where machines or machine methods are all that is needed. In hand binderies in New York not more than one hundred women are at work; in edition binderies, 1,200; in pamphlet and magazine, 2,500; in binderies combining edition and pamphlet work, 1,800; in blank book, 900; in miscellaneous work, binding calendars, etc. 300. In all there are about five thousand women at work in binderies in New York, about one-third of the total number of bindery women at work in the United States.

The different branches of the trade resemble one another in varying degrees. All are concerned with folding sheets so that printed pages may follow one another in the right order, gathering together and sewing or stitching the folded sections in proper sequence, and attaching a cover. But to the girl looking for work the difference are more striking than the resemblances. In general, women's work is to fold, gather, and sew. In hand binderies the folding is done by hand, using a bone folding knife to crease the pages. The sheets are gathered by hand. They are sewed with a needle and a linen thread to the cords stretched on the sewing frame or bench. (See picture). After that the book leaves the hands of women, and men carry it through many diverse processes,- pasting up, trimming, glueing up, rounding, backing, preparing the mill-boards, drawing-in and pressing, cutting, coloring the edges, covering, tooling and ornamenting. Each book in its progress through the bindery acquires a distinct individuality.

In edition binderies the individuality of one is lost in the production of thousands. Processes are divided and subdivided. Here also women fold, gather, paste, and sew, but they must meet demands very different from those in the hand-bindery. One group of girls feed sheets by the thousands through folding machines. Another group place the sections in a gathering machine which turns them out in order for volumes. Another group feed the sections in their order into a sewing machine. ~~xxxxxxx~~ After that the work is mainly in the hands of men. Girls take no part in the work of forwarding, getting the sewed book ready for its covers; and their only share in finishing is to lay the gold on the covers before they are stamped, and finally to wrap the completed volumes. In pamphlet binding forwarding and finishing, which occupy so important a place in hand-binding, drop cut of the list of processes. Women may stitch or paste on the paper covers. Magazines are really pamphlets distinguished by uniformity of shape and size month after month. Because of this uniformity they lend themselves admirably to machine production. Thus on Manhattan Island we may find binderies illustrating in present conditions every stage of the industrial revolution. Are the changes which that revolution represents giving new opportunities to women in this industry?

VIII

(See next page)

Up to 1900 it would appear that women gained ground at the expense of the men's opportunities. Between 1900 and 1905, the men began to regain what they had lost. Apparently it is these losses which loomed large in the minds of those ~~xxxxxxx~~ women whose opinions we have been quoting.

What is happening? There must be two parts to the suggested answer; first, a composite photograph of the conditions of work of ~~xxx~~

the typical bindery girl in New York to-day; second, an analysis of the forces which make for or against her welfare.

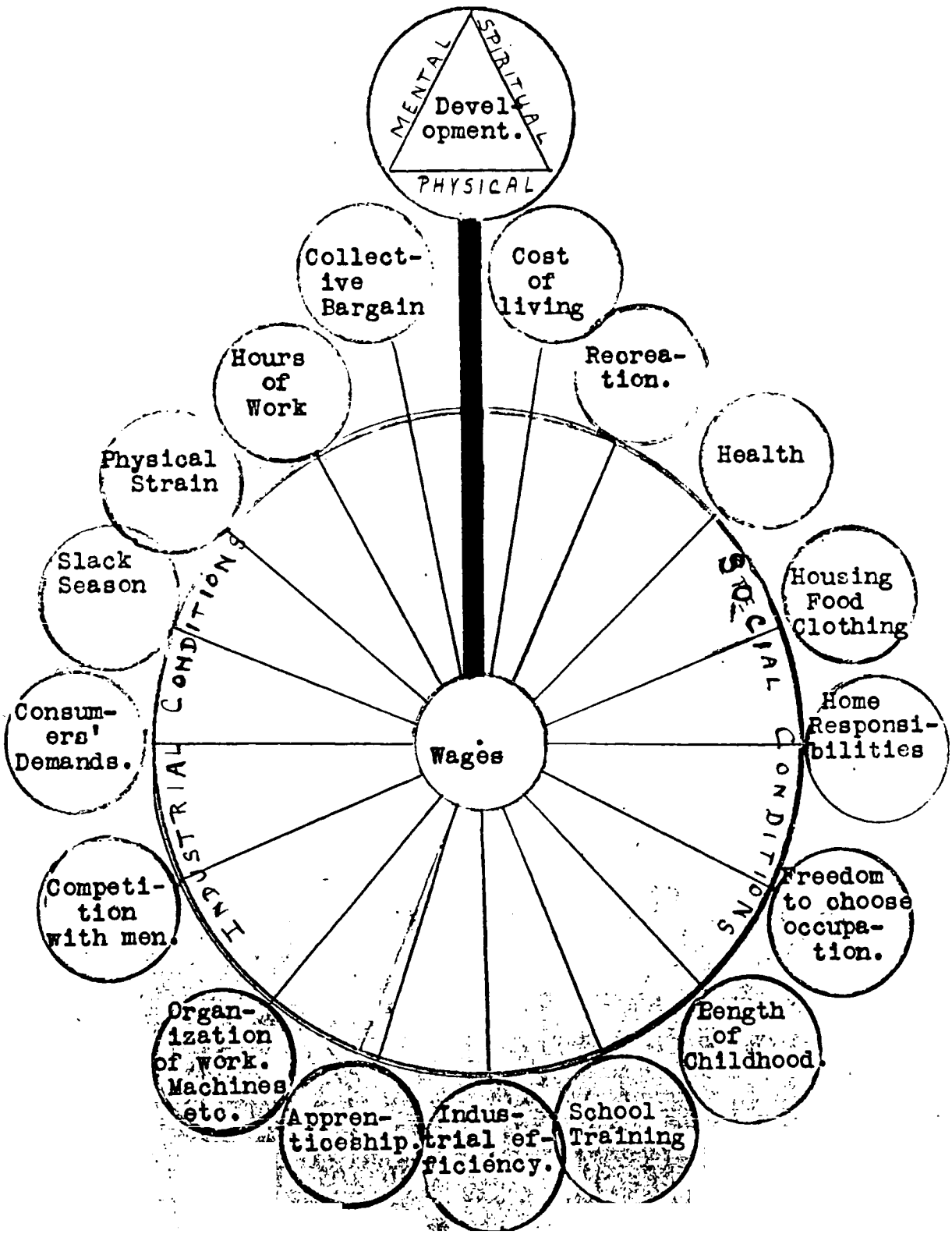
We have not the time to go into the mysteries of tabulation and statistical work further than to explain that the composite photograph is made by describing in connection with each subject, schooling, age, nationality, wages, loss of time, etc.- the girl who represents the medium group. For example, in wages she stands at the point where those earning more just balance in number those earning less. Statistically speaking, she receives the "median wage."

She is twenty-one years old. She was born in the United States. Her parents were foreign-born, probably Irish. She is unmarried and lives at home. She left public school to go to work when she was fourteen years old, and her first wage was between two and three dollars a week. She has worked at other trades besides bookbinding. When she is out of work, she finds a new job through friends, or advertisements in the newspaper. She is not steadily employed. She is frequently laid off because, work is slack, and she loses between two and three months of work and wages in the year. Her hours of work in binderies are from eight in the morning until half past five at night with a half hour for lunch at noon, nine hours a day actually spent at work; between fifty and fifty-five hours in a week. In the busy season she works overtime three nights a week. Her wages in a week in the busy season are between seven and eight dollars. Allowing for the loss of two or three months her weekly wage throughout the year is reduced to an amount between five and seven dollars.

But the remarks which we quoted before indicate that there are forces which may change these conditions. Their refrain seemed to be, The bindery trade is changing for the worse so far as girls are concerned. We must know more about the influences which affect the

welfare of women workers. A diagram may help. Though it will fail to show relative values, it may at least indicate the interrelation of conditions.

Forces Affecting the Welfare of Women Workers.



I have placed wages at the center because it is the vital test of the welfare of a worker. This fact must never be neglected, in any effort to improve industrial conditions. The diagram should show us, of course, how complex are the problems of women's work, and how many, therefore, are the ways of approach. But it should remind us also that under the wage system in a community where no household can produce for itself all that it needs wages are the means of exchanging specialized energy for the gratification of many wants. The left hand side of the diagram represents roughly the expenditure of energy; the right, the social needs.

Industrial efficiency is at the foundation. It has a direct bearing on the whole development of the individual, but the line of connection must pass through wages, which are determined not alone by the efficiency of the individual but by working conditions on the one hand and social conditions on the other. Industrial efficiency touches the system of apprenticeship in trade, and school training in the community life. Trade conditions are not be thought of as distinct from social conditions but as part of the same continuous circle. Apprenticeship is conditioned by the methods of organizing the work, the extent of subdivision of labor and the use of machinery. Women's opportunities may be limited by competition with men. Conditions of production are largely determined by the consumers' demands. To them is due in large part the slack season with loss of wages. Finally wages must be measured not only in the buying power of money, but as return for the spending of energy, the physical strain of the work, and the hours of labor. The necessity for the collective bargain arises out of all the other working conditions and their inter-relation. In so far as these conditions weaken the power of the individual to bargain for adequate wages to meet the cost of living, the whole development of the individual may be checked. This development is largely conditioned up-

on economic independence, the length of childhood, the freedom to choose an occupation rather than to be forced to work or starve. Wages must be translated into terms of home, responsibilities and family standards, which in turn are largely influenced by the community's standards of health, housing, food, clothing, and recreation.

The bindery girl in New York has no opportunity for initiative or taste in her work. Skill in her case means ability to repeat one process with the greatest rapidity. This is because labor has been subdivided in order that production may be more rapid. Since specialists are needed, learners are trained to be specialists,- not the professional specialist who has a grasp of fundamental principles, but the mere repeater of a single process unrelated to the whole.

Such a repeater is helpless to adapt herself to changes. Everyone knows how rapid are the so-called "improvements" in machinery. Everyone must realize, therefore, the uncertainty which menaces the bindery girl. She cannot foresee when the machine which she constantly operates may be displaced by one of very different mechanism. She may be forced to seek other work, or to reduce her earning power while she learns the new machine.

One girl who had operated a "paint" folding machine for ten years was thrown out of work when the automatic machine, tended by a man, was introduced, "A man," she said, "is paid according to what he knows rather than what he does." As machines grow more complex, there is a tendency to dismiss women, and to employ men. In the magazine branch of the trade the introduction of machines, which combines several processes has progressed rapidly, and doubtless accounts for the decrease of the number of women compared with the number of men between 1900 and 1905. Women are losing such time-honored

tasks as folding, which may now be done on a printing press. On the other hand the increase in the number of women between 1880 and 1900 was doubtless due in part to the increase in production of pamphlets and magazines which needed no elaborate forwarding or finishing and were bound almost entirely by women. Apparently no new opportunities were gained by women in spite of the relative increase in their numbers.

The attitude of the bookbinders' union on the question of the competition between men and women is expressed in a speech of the president at the twelfth convention held a week ago.

> "It has always been, and still is, my firm opinion that too much consideration cannot be given to the furtherance of organization among our bindery women. This fact was further impressed on my mind by my Southern experience. I found, in quite a few of the cities in the South, female paper rulers, paper cutters, forwarders and finishers. Our organization asserts, as a principle, that where equal work is performed, equal wages shall be paid, irrespective of sex. We therefore have no objection, as an organization, to our female shopmates working at any branch if she gets the same price for her labor. Bitter experience has taught us however that female labor means cheap labor, and therein lies the danger.
>
> The absolute remedy lies in organization, which alone will prevent the unscrupulous employer, exploiting the labor of the woman, to the detriment of the already scant price of labor, and the consequent corrollary of lowering the standard of American manhood and womanhood. Let us give attention to organizing our women."

We see then how straight should be the line on the diagram connecting Wages and Competition with Men. That "women's labor is cheap labor" seems to be borne out in the Census figures.

Weekly Earnings in Bookbinding. New York.

	Less than $6.	$6-10	$10 and over.
Women	53.7	39.7	7.6
Men	15.5	28.0	56.5

U.S.Census 1905. Bul. 93 p. 112.

Changes in organization of work due to machinery and other changes in methods of production, and the possible effects of competition with men are not the only forces influencing the work of a bindery woman. She must also feel the effects, of the consumers' demands which show themselves not only in increased production in one branch of the trade, for example, magazines, but year after year in overwork at one season and unemployment at another.

The consumer wants his magazine delivered promptly and he wants to find in it the latest news. The author keeps the printer waiting, and the printer keeps the bindery waiting, but the binder must not keep the consumer waiting. He must get the work done somehow even if the time be short. The consumer gives books as Christmas presents so the autumn months are busy in edition binderies. Pamphlets for advertising precede the season of demand for the goods which they advertise. In no branch of the trade are the same number of women employed each months in the year. In "job" binderies 21 % are out of work in the dull; in edition binderies 17 ~~% are out of work in~~ in pamphlet and magazine binderies 35 ~~% are out of work in~~

These are the figures gathered in interviews with employers. From the girls' records we learn their side of the story. More than 50% of the girls who had worked in binderies within a year of the date of investigation had been employed in three or more binderies in the preceding twelve months. Among 394 positions whose length in time could be accurately measured 228 or 58% lasted less than one year. 89% of the positions were lost for reasons due to trade conditions such as slack season, firm failed, wish to advance in work or wages, and changes in machinery. 48% of the workers lost from one month to six months of work in the year. This is a problem of maladjustment which demands fuller treatment in a later lecture.

Speed, division of labor, monotony of tasks, standing at work, use of machinery, and the heavy weight of paper all tend to cause great fatigue after a day's work in binderies. Physicians are turning their attention now more and more to fatigue as a physiological symptom of overwork. They tell us that rest alone can repair it. On this ground is based the demand for legislative control of the hours of work. 47% of the women in binderies have a normal working week longer than 48 hours When working overtime the day may be lengthened to twelve, or fourteen hours or even prolonged throughout the night. Violations of the law in the bookbinding trade will be discussed in connection with our study of labor legislation. That 53% of the women in binderies work forty eight hours or less is undoubtedly due to the action of the trade union which is urging the collective bargain as the means of insuring justice in trade conditions. About twelve hundred women are members of the New York women's local of the International Brotherhood of Bookbinders. They have a collective voice in controlling conditions of work in about 25 large binderies. A description of their methods must also be deferred until we discuss the work of trade unions for women.

It is the purpose of the union to maintain an adequate standard of living, to protect the wage-scale against the uncertainties of industrial conditions and to secure in return for their labor enough money to enable them to meet the cost of living and to provide for themselves proper housing, food and clothing, recreation, and the conditions necessary to health in a community like New York. Bindery women are not "pin-money workers." They have left public school before graduation. They have become working women at the age of fourteen. They have had little freedom to choose their occupation. They have been obliged to take what they could get. Although a large majority live at home in families whose support is shared by other wage earners, 8% are boarding, and 30% are members of households in which women are the only wage-earners. The forces which protect or assail the economic position of a woman, measured by her share in wages, are of vital importance to such households.

Inadequate as this description of the bindery trade must be, its purpose will be accomplished if it has given you a realization of the complexity of the problems of women's work, and the ways in which they are bound up with the life of the community.

Last month the Census enumerators gathered statistics of the population throughout the United States. Two of their schedules will give us information about women in the trades in 1910. The population schedule filled out in a house-to-house canvass will be tabulated to show the numbers of women employed in the five large groups of industries. We shall know their trade or occupation, their ages, their birth-places, their parentage, whether they are living at home or boarding, and whether there are other wage-earners in the family. The information will be given us for the whole country, for each state, and for each of the larger cities. Some of the facts in a few communities

will be tabulated by blocks.

The schedule of manufactures, filled out in the different factories will show the number of men, women, and children employed in each industry, the number employed in each months, and the rates of pay in a week in the busy season. It should be the basis for outlining a program of investigation of women's work in any community. But our discussion of the bookbinding trade would seem to indicate that more searching inquiry is needed in order to understand the influences which are affecting the welfare of women workers. How a program of action should grow out of such an inquiry will be discussed in a later lecture. Having realized the complexity of industrial conditions, we shall probably all agree that it is not enough that a community should desire to improve the conditions under which women work and live. It is necessary, as a first step, to know the facts about women's work and living. As yet, we do not know them thoroughly in any community.

APPENDIX B

Mary Van Kleeck to John M. Glenn
Feb. 2, 1912 memorandum
Visit to Doubleday Page & Co.

THE COMMITTEE ON WOMEN'S WORK
OF THE RUSSELL SAGE FOUNDATION
ROOM 1605, 31 UNION SQUARE WEST
NEW YORK

HENRY R. SEAGER, CHAIRMAN
MISS LILIAN BRANDT
SAMUEL M. LINDSAY
HENRY R. SEAGER
SONIO STELLA, M. D.
MRS. LAWRENCE VEILLER
MISS ELLEN J. STONE
LAWRENCE VEILLER

MARY VAN KLEECK
SECRETARY

TELEPHONE STUYVESANT 4294

February 2, 1912.

My dear Mr.Glenn:-

This is a report of my visit to the plant of Doubleday Page & Company on January 30th.

I talked first with Mr. Walter H.Page who told me that he wanted me to go anywhere in the building with or without a guide and ask anyone any questions. He said that many persons thought of their plant as a "model factory" but that they made no pretense of that, that they were all interested, however, in suggestions as to what they could do to improve their conditions. Mr.Page provided a guide for me, a young girl who is employed in the clerical department and I went through every department in the building and in the manufacturing department I talked with one girl doing each process of work.Without describing the physical conditions in the building I shall merely take up the main facts which I ascertained.

There are two bindery departments, one where books are bound, and one for pamphlets and magazines.

The Book Bindery.

Methods of training learners.

It is the intention of the firm not to employ any girls under 16. Two younger girls are now at work but when they were engaged the firm thought that they were 16. It has been necessary in the year or more since the bindery opened to train up a staff of women workers. A number of the experienced girls were taken out from New York and Brooklyn, and the wages were so arranged to make up to them the commutation fare of $9.60 from New York or $7.60 from Brooklyn. Girls were then secured from the neighboring towns around Garden City and for several months the plant was on a week work basis in order that better workmanship might be developed than would have been likely if the piece work system had been used immediately. Girls are taught by the same method as prevails in binderies in New York. It is not a very definite system. They are given the simple processes and for about three months they are paid by the week. After that time they are paid by the piece. When experienced workers are needed they are sometimes secured from the union in New York although the shop is not unionized and signs are pasted in conspicuous places "This is an open shop, first, last and all the time." The foreman said that the firm is not eager to have union members at work here.

Seasonal work. Apparently legal holidays are the only time lost from work in the year. Girls are not paid on those days. One of the workers with whom I talked said that she had not lost any other time and she had been there since the firm moved.

Hours of work. 8a.m. to 5:30 p.m. ½ hour at noon, Saturday stop at 12 noon, 9 hours daily, 49 weekly. In the summer a schedule is adopted which gives the whole of Saturday, the time being made up by working until 7 p.m. on Tuesday and Wednesday. The men who come out from New York like this arrangement much better and it is being continued through the winter.

Overtime. In November and December they sometimes work overtime two or three nights a week until 8 o'clock, but apparently never exceed 11 hours daily or 55 hours weekly. The time is controlled by the railroad time table as there is no train between 8:30 and 10:38.

Wages Learners are paid $4 week work. The range of pay for experienced workers seems to be up to $13. The foreman showed me some pay cards which he said he had selected at random. They showed daily earnings of $1.25,$1.46, $2.12 up to $2.68. He said that they paid the union scale. He estimated that the average weekly earnings of experienced workers are $10.

Magazine Bindery.

Learners. None under 16. They are trained as in the book department except that it appears to take less time here. The foreman's chief complaint was that the girls who come to him from the country are not as alert as those who come from New York nor eager to earn as much money as possible. He said that it would be easier for this firm if there were other factories in the neighborhood where girls would get accustomed to factory methods.

Seasons. The steady work in this department is rather remarkable. Apparently no time is lost through the year. Mr. Page afterward told me that they have accomplished this by arranging the dates of publication of their magazines so that they will be distributed as much as possible through the month and then by filling in gaps by orders which can be done at any time. They have given much time to the problem as of course it is a much more economical arrangement not only for the workers but for the firm to keep the plant in operation throughout the month.

Hours of work. The same hours as in the cloth bindery except that they do not follow the plan of taking Saturday off.

Overtime. One week each month they are busy and work overtime three nights until 9 or 9:30 with half an hour for supper, making a working day of 12 to 12½ and a week of 58-59½. They are paid time and a half for this work.

Wages. Learners here are paid a minimum of $5 a week and the limit for experienced workers is $13 with an average amounting to $10.

Visitor's comments. First of all the apparently better physical condition of the working women in this establishment impressed me in contrast to the anemic condition of girls in New York binderies. I could not help wondering however, whether anything in the process of work and the length of the working day would so affect these girls physically that after a little longer time

in bindery work they would not look as well. In this bindery as in others in the trade, the work is so organized that one worker repeats the same process many times in the day. This may be inherent in the situation. An effort is made to give learners practice in the different processes but the workers themselves if they are on piece work prefer to specialize. Some of them stand all day and others sit all day. Stools are provided but they have no backs. One girl with whom I talked was operating a wire stitching machine which requires a heavy pressure of the left foot on a pedal.

I do not believe that the arrangement of hours in the cloth bindery, working until 7 p.m. twice a week and then having Saturday off, is the best plan for the girls, but I understand that the workers themselves prefer it, especially the men who would rather not come out on Saturday for four hours' work.

In both departments the girls are responsible to foremen and there are no forewomen.

It is difficult to make any very definite criticism of the wages. According to the foreman's statements a good standard is maintained. The pay of learners, $4, is the same as in Colliers which is a union bindery. In Harper's learners get $5 a week. The upper limit $13, is not equal to Harper's or Collier's, where girls can earn as much as $15, $16, or $17 in gathering or pasting, It chanced that the girls with whom I talked and whom I selected at random when I went through the bindery seemed to be underpaid. In the printing department I talked with a woman compositor who was correcting the type, using a galley proof. She said that for this work this firm's women are paid $15-$18 a week whereas the union scale is $21. She boards in Hempstead and seems to feel that the cost of living is higher than in Patterson or New York. She said also that amusements were few.

In the pamphlet bindery a young girl who was feeding the drop-roller folding machine said that she had been doing it for two months having been a learner before that time. She was earning $6 a week. She said that the other operators were getting $12 a week and doubtless her pay was due to the fact that she was a beginner. Nevertheless the machine is gaged at a definite speed so that I do not believe that the difference in output is as great as the difference in wages. The standard rate for this work ought not to be less than $9

A girl who was filling the boxes of the gathering machine said that she was earning $7 a week. This is approximately equal to the rate paid in some binderies in New York but the better ones pay 17¢ an hour which would be about $8.30 a week on a 49 hour basis.

The gold layers are earning the usual union scale of $11 a week. One of these with whom I talked lives in Brooklyn. She leaves there at 7:13 in the morning, arriving at Garden City at 7:50. As the bindery is open until 5:30 she can not leave Garden City until the 5:58

train and does not get home until 7 o'clock at night. Possibly a half dozen girls of the 120 in this department commute from Brooklyn.

The majority live in the town about Garden City including Mineola, Hempstead, Floral Park, etc. and they travel to and from work by trolley. A few live in Jamaica. Those who do not live at home, but are boarding seem to agree that the cost of living was higher in those towns than in New York. If this be true the wage scale certainly ought not to be lower than in New York establishments.

Before reaching any very definite conclusion regarding the wages paid I prefer to have a conference with a few of the girls employed there. They are also members of the union so they know the union scale.

Conference with Mr.Page.

Mr. Page most courteously urged me to make suggestions. I told him that I did not feel prepared to do so after such cursory observations. The only suggestions which I could make were obvious ones concerning the possibility of seats with backs instead of high stools, the desirability of arranging the work so that the worker could be transferred from one process to another in the course of the day, and the possibility of a less heavy pedal on the wirestitching machine.

Mr. Page talked of the delicacy of the relation between employer and employee, and t e difficulties in the way of the employer who tries to ascertain anything about his workers and their living conditions. He has had some thought of having in the bindery a trained nurse who should be in constant touch with the girls, understanding their needs, and suggesting changes which might not occur to the firm. He asked my opinion of the plan and my snap judgment was that the difficulty would be to give her such a normal position in the plant that her role would not be in any sense patronizing, and that she would have a real understanding of conditions. I urged consideration of the plan of having high-grade forewomen to carry out part of the task which Mr. Page proposes for a trained nurse. It happens that the forewoman whom they had was a failure so they put a man in charge.

I was very much impressed by the careful planning to secure regulation of work throughout the year. This regularity of work should of course be taken in consideration when we compare the wage scale. Neither Harper's nor Collier's whose rates I have cited in comparison have steady work throughout the year.

It was not possible for me to discuss the question of wages or hours as our interview was cut short, but I do feel that further conference with him is most desirable in enabling us to see how our reports may be used to interest employers and what steps may be taken by them to remedy some of the difficulties which we have discovered.

With reference to the wage scale it really seems to me a question whether any bindery can be put on a sound basis unless there is some machinery for the collective bargain

between the firm and the worker. This brings up the whole question of trade unionism and I am fully aware of the difficulties which employers must be encountering with the union as it is at present organized. Without some such collective bargain and the standard which it brings about I cannot see any means of preventing the shaving off of wages here and there through the bindery by the action of the foreman who is there to make his department as profitable as possible. I wish that it might be possible to talk this matter out further with Mr. Page in order to find out why they have taken the stand that they will not enter into any contract with the union.

After seeing more of the girls who are working in the bindery I shall want to submit a further report to you.

Very truly yours,

Mary Van Kleeck

VK-W Secretary.

P.S. Thank you for Mr. Lovejoy's letter which I am returning.

APPENDIX C

Mary Van Kleeck to John M. Glenn
Feb. 3, 1912 memorandum
Conference with Female Bindery Workers

COMMITTEE ON WOMEN'S WORK
OF THE RUSSELL SAGE FOUNDATION
ROOM 1605, 31 UNION SQUARE WEST
NEW YORK

HENRY R. SEAGER, CHAIRMAN
MISS LILIAN BRANDT
SAMUEL M. LINDSAY
MRS. HENRY R. SEAGER
DR. ANNIE STELLA, M. D.
PROF. LAWRENCE VEILLER
MISS ELLEN J. STONE
LAWRENCE VEILLER

MARY VAN KLEECK
SECRETARY

TELEPHONE STUYVESANT 4264

February 3, 1912.

My dear Mr. Glenn:-

Yesterday evening I had a conference in the office of Women's Local Number 43 of the bookbinders' union. Three girls who worked last summer and autumn in the bindery of Doubleday Page & Company were there to talk with me. All three were union members. Two had been gatherers in the bindery and one a paster They began the interview by saying that they thought Doubleday Page & Company paid higher prices than New York binderies, but later modified this view as they discussed specific prices and compared them with the union scale. Apparently throughout the summer the girls were badly overworked.

Two of these girls lived in Brooklyn and were obliged to pay 10¢ a day trolley fare besides the railroad fare, the two together amounting to $10 a month. One of them went to work a week before the middle of the month when she could not get the advantage of a commutation ticket. She finally prevailed upon the forewoman who was then in charge to give her a mileage book. The forewoman, she says, wanted to deduct the amount of this mileage from the week's salary but the girl objected and as they were in need of experienced workers they paid this amount but did not in any way compensate the girls for the very large commutation rate. It should be added that these were among the girls who helped to train new workers, and that the girls over the first [illegible]
The third girl went out to Hempstead and boarded paying $5.50 a week.

They say that all through the summer months and until November they worked five nights a week until 7 p.m. catching the 7:11 train home. They were piece workers and they were paid the same rate as by day for this overtime work. The union scale requires "time and one half" for overtime work. On Saturday they worked until about 3 o'clock. They were on their feet all day and both girls were obliged to give up their positions because of the exhaustion due to long hours and the travelling in the morning and the evening. They said that they could make $15-18 with the overtime work.

During the time that they were in the bindery new girls from the neighborhood of Garden City were being trained in. These girls were ignorant of prices or methods in binderies and apparently played the part which Italian girls are often accused of playing in New York binderies. If any of the "city girls" protested against unfair rates a country girl was always ready to say that she would do it for the rate offered.

During the summer they had a forewoman, a Miss Singleton, who treated the girls very unfairly according to their statement, and it was because of the discontent which she caused in the bindery that the firm dismissed her. They tell me that another woman has now taken her place. I judge, however, from my conversation

with Mr. Page that she has not the full authority of a forewoman.

These girls said that they were all warned by the foreman not to speak in the shop of their membership in the union.

Specific information about rates is somewhat difficult to get. These, however, are some samples. The union scale for the gathering machine is about $9 a week. The scale paid by Doubleday Page & Company is $7. An operator of the sewing machine should be able to earn $12 a week. One of the girls with whom I talked in Garden City and who seemed to be experienced was earning about $10. Wire stitchers paid union rates piece work should be able to earn $12 to $14 or even $18 a week. The experienced worker with whom I talked in Garden City was earning $8 week work. The union rate for time work is $.20¾ an hour. For some work Doubleday Page & Company used to pay a rate of 25¢ an hour but it was later cut to 21¢. This is still above the union scale.

The girls had a great many good things to say about the bindery there. For example, instead of making the gatherers carry the sheets from one part of the bindery to another a porter brings them their work and opens the buddles for them. This saves them a good deal of wear and tear. They speak highly of the foreman in charge of the cloth bindery and say that he is very willing to take suggestions from the workers. They all feel, however, that the temptation to cut the rates will increase as the proportion of country girls in the force increases. This, of course, would have a serious influence not only on the bookbinding trade but on any other industry which may chance to locate near Garden City.

The sum total of my impression remains the same as before my conference with these girls, namely, that a few girls in the bindery are paid below the rate prevailing in the trade, that in general the girls feel that the firm wishes to treat them fairly and to maintain the best conditions but that without some means of observing a standard rate of pay the danger of cutting the rates is imminent. It is unfortunate that they have had so much overtime but I was again impressed by the regularity of work in Garden City as compared with the very dull season which seems to be prevailing in many of the binderies in New York.

Very sincerely yours,

Mary Van Kleeck

VK-W Secretary.

APPENDIX D

Mary Van Kleeck to John M. Glenn
Feb. 8, 1912 memorandum
Report of visit to Philadelphia Binderies

THE COMMITTEE ON WOMEN'S WORK
OF THE RUSSELL SAGE FOUNDATION
ROOM 1608, 31 UNION SQUARE WEST
NEW YORK

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February 8, 1912.

My dear Mr. Glenn:-

I returned from Philadelphia last night after three very interesting days in which so many clues were given me regarding women in the bindery trade in Philadelphia that it was difficult to know when to stop.

Sources of information. Before leaving New York the officers of the women's trade union here gave me a carefully prepared list of Philadelphia binderies, showing the number of men and women in each shop, and the number who were union members. They also gave me the name of the president of the women's local in Philadelphia. Miss Murphy, the president of the New York local had recently been in Philadelphia so that she was able to tell me which firms the union considered fair, and which ones, she felt, had bad conditions for the workers. Mr. Kellogg had given me a card of introduction to Mr. Fell, and Miss Richmond introduced me to a member of the firm of Patterson and White who have done printing for her for some years.

After my arrival in Philadelphia I got in touch with the officers of the trade union, with Miss Davies of the College Settlement, and with Miss Sanville of the Consumers' League. Miss Davies could give me no information and knew no workers in binderies. Investigators of the Consumers' League, however, had on file records of interviews with employers in about 20 binderies and printing establishments, and I had an opportunity to look them over.

Fortunately the monthly meeting of the women's local was held on Tuesday evening and I was invited to attend, so I had an opportunity to meet a number of girls and to hear their discussion of various shops.

Records of Firms.

William Fell Printing Co.

I find that this firm does not bind any books. The work is given out to the Murphy Parker Co. Fell has a small pamphlet bindery with only two girls employed. The weekly wages are $9 and they work 48 hours a week. Fell has an agreement with the printers' union but not with binders'. Mr. Howard Fell introduced me to Mr. George Murphy of the Murphy Parker Co. and I made an investigation of that establishment. When I asked Mr. Murphy what books he had bound for Charities Publication Committee he named practically all the Sage publications.

Murphy Parker Co. 701 Arch Street. Edition bindery.

About 40 girls employed, average weekly wage $7-7.
In greater detail the wages for different processes are as follows:-

Feeding point folding machine

The head girl gets $12 week work, the other two

are paid by the piece earning $8 or $9. Some folding is done by hand, and there are also drop roll and Brown folding machines, but no self-feeding folding machines because of the difficulty in detecting errors.

Gathering, hand and collating.
Maximum $10 or $12 piece work. A gathering machine is being considered.

Pasting by hand.
Maximum $10 to $12 piece work. Pasting machine is used for certain parts of the work but not for putting in plates.

Sewing machine.
$6 to $12 week work. The least experienced gets $6, the head girl gets $12.

Gold layers.
$7,$8, or $9 week work.

Posture at work. Feeders of the folding machine and gatherers stand at work. Also the three girls who do wrapping in the shipping department ($5-$8 week work) The other workers all have seats with backs except in the gold layer's department where benches are used.

Learners. Learners are taken at the age of 15 and paid $2½ $3 or $4 week work. The forewoman trains them giving them some form of hand work at first. The length of training varies but usually about 3 months is sufficient.

Scarcity of workers. This is a serious problem. The firm has recently advertised in four or five city papers for several successive days, but have had not more than one or two applicants. They have also tried to get workers through the Industrial Betterment Bureau of the Consumers League, but the Bureau has had no experienced applicants to send.

Regularity of work. The busy season comes in the winter but varies according to orders. The dull months are June and July. Mr. Murphy says that they never lay their workers off but keep them on three-quarters time in dull months. At that time they bind certain stock books, such as medical publications, Mrs. Rorer's cook book, etc. Girls are transferred from one department to another in dull times.

Hours of Work. 8 a.m. to 5:15 p.m. with ½ hour at noon, Saturday 7:45 a.m. to 12, 8¾ hours daily, 48 weekly. They occasionally work overtime three and four times a week until 6:30, 7 or 8, but apparently never exceed 11¼ hours in a day or 58 in a week. They pay time and a half for overtime. When I asked him at what season they had it he replied "When you publishers push us." He said that if the publishers would give more consideration to bind-

ery conditions the binder would have less serious problems.

Workroom. On the top floor. The building is shaped like one half an H and thus there are two long narrow departments. They have light on three sides and the ventilation seems to be good, although the space is apt to become crowded with stock and rubbish accumulates rapidly.

Attitude towards trade union. The men are thoroughly organized and the firm has an agreement with them, but the girls do not belong to the union, and I concluded from Mr. Murphy's conversation and from the statment of some union members outside the shop that any girl who discussed trade unionism here would be likely to lose her position. They were once organized for a brief period while they were binding a book by John Mitchell.

Mr. Edgar Murphy, the senior member of the firm, is chairman of the bookbinder's branch of the Board of Trade which makes collective bargains with the unions. It corresponds with the Bookbinders' League of employers in New York.

Worker's opinion of this place. The business agent of the men's union pronounces it O.K. but says that they have not so good a wage scale as such a firm as Winston's which is thoroughly organized.

A girl with whom I talked at the union meeting had worked here some time ago. She said that she was treated very fairly and was paid $6.48 as a gatherer although she was really only a learner.

The sum total of my impression is that so far as the conditions of work of girls in this establishment are concerned it is of medium grade in its standing among Philadelphia firms. The scale of pay is not as good as in the bindery of Reed & Co. where the girls are thoroughly organized. On the other hand it is not classed as an unfair place either by workers or by employers. If Charities Publication Committee cared to bring some influence to bear I think that it might be possible to persuade the firm to encourage the girls to join the union and that this might result in a higher wage scale.

Other firms. Without taking space to give all the details of all the investigations of the five other firms which I visited it may help to show the general status of Murphy Parker if certain essential facts are given regarding each of them.

James Arnold, 518 Ludlow Street. The agreement seemed unanimous that this was the worst firm in Philadelphia both in their treatment of the workers and in their habit of "cutting the throats" of other binders.

Mr. Arnold takes on large numbers of learners. He says that he pays them about $3 but sometimes he makes them work for piece work wages. His complaint is that they leave him as soon as possible to get $2. more than he can pay. The average for experienced workers as he stated it is $5½ to $6. The workroom is crowded and ventilation not of the best. The men's union have forced the shop to organize because of some orders which they had for city work. The girls do not belong to the union.

Lasher, George F. 147 North 10th St. About 45 girls are employed here at this time of year as the firm binds at least a portion of the directories of the Bell Telephone Co. Although the workroom is on the 6th floor with windows on three sides one gets the impression of the most crowded sort of sweat shop and the girls are working under electric lights. Heavy noisy machines are placed near the windows and the belting for these machines forms a net work through the room. The stock takes up a great deal of space. A large number of machines are used including various forms of wirestitching machines seldom seen in other binderies. The firm has a gathering machine said to be the only one in Philadelphia. The foreman stated that the average wage is $6½.

(Incidentally it was somewhat of a shock to discover that the Industrial Betterment Society of the Consumers' League sends workers to this bindery and to Mr. Arnold's.)

Patterson & White. This is a small pamphlet bindery connected with the printing establishment of this firm. Only 10 girls are employed and they have plenty of light and ventilation in the workroom. Seats with backs are provided for them all, even the girls who take out the folded sheets from the folding machines. It is most unusual for these girls to be provided with seats. The foreman estimates that the average wage taken the year round is $6½ to $7, but coverers may earn as much as $15 a week. The hours are short and they seldom have overtime. The season does not affect employment as they bind a memorandum book in dull months.

Penn Printing House. North 7th St. and Cherry. This is a small pamphlet bindery in which the president of the women's union is usually the only woman employed. For a few days every month, however, two or more other workers are taken on to bind a magazine, and all are paid the union rate of 17¢ an hour or about $8 a week. The light in the workroom is not good.

A. Reed & Co. The general agreement is that in working conditions no bindery in Philadelphia excells this one. About 35 girls are employed. The machinery and the

stock are all arranged in the middle of the room so that the girls work near the windows. The workroom is on the fourth floor of a corner building and there are low buildings opposite. This is the building of the Baptist Publication Society and Reed and Co. bind their books but also take outside orders. Feeders of the folding machine earn $8½ to $10, gatherers and collators a maximum of $10 or $12. wirestitchers $7, sewers a maximum of $12 or $15, pasters $7, $8, or $12; and goldlayers $8. No girl gets less than $4 even as a learner. The assistant forewoman with whom I talked has been employed here 10 years and has known of only two dull seasons when workers were laid off.

I heard this shop discussed frequently in the course of my interviews and it was always spoken of as one of the best.

I showed my report to Mr. George Murphy of Murphy Parker Co. and he made some comments which I shall report to you in another letter.

The trade in Philadelphia is very interesting and I was tempted to go on and follow up the advantage which I had in meeting so many workers. It is difficult to draw any definite conclusions regarding any one firm in so short a visit. My general conclusion, however, that Murphy Parker Co. is good enough to be made better if Charities Publication Committee will use a little influence in that direction. If this does not seem possible or if it does not prove practicable I wish that they might get bids from some other firms in Philadelphia whose standard seems to be the highest.

Very sincerely yours,

Mary Van Kleeck

VK-W

APPENDIX E

Mary Van Kleeck to John M. Glenn
Page 3 of May 11, 1912 memorandum

Barrows' field is in the elementary schools and apparently there is little co-operation between her committee and Miss Rodman or Mr. Weaver. Miss Rodman's group are attempting to give vocational guidance to the children through frequent conference with them from the time they enter high school.

National Board of Young Women's Christian Association.
In preparation for a lecture on employment bureaus in the National Training School I have been corresponding with the secretaries of 12 Association employment bureaus in different sections of the country using the list furnished me by the National Board as representative of the best employment work done by these associations. The replies are interesting in showing how little comprehension any of these secretaries seem to have of the constructive social possibilities in such bureaus. They seem rather to have grown up as feeders for association membership.

Women's work in Government Printing office in Washington.
Miss Odencrantz and Miss Hourwich both went to Washington during their spring vacations. Miss Odencrantz went through the establishment where bank notes are printed and engraved and Miss Hourwich inspected the Government Printing Office. Miss Odencrantz reports that in the printing room about 2600 girls are employed after civil service examinations. They must be at least 18 years of age. The beginning wage is $1.50 a day with no increase except for those who are appointed as examiners. Each girl works as feeder for a man printer. Both man and girl stand at their work and no seats are provided. There are of course very careful methods of checking up workers and holding the workers responsible for any loss of the paper.

Miss Hourwich reports that in the Government Printing Office about 855 women are employed. Practically all are on piece work, beginners making perhaps a dollar a day and experienced workers about $2. The best work is the monotype operating which is paid at the rate of about 60¢ an hour for the best workers. In both the Printing and Engraving Departments and the Government Printing Office the majority of the women are middle aged. They work in several shifts, 8 A.M. to 4:30 P.M; 4 P.M. to 12:30 A.M; 7 P.M. to 3:30 A.M; 12 midnight to 8:30 A.M. Miss Hourwich secured a copy of the piece rates paid to workers. These, however, are not especially significant without a knowledge of the speed possible.

The most objectionable feature in the Government Printing Offices is the shifts of workers. I have heard Washington people who know the girls employed here speak of the danger of their going home alone so late and also of the fact that there is no time between shifts for the airing of the workrooms.

APPENDIX F

Sample of analysis of interview one with Informant One

SAMPLE OF NOUNS FROM INFORMANT ONE/INTERVIEW 1

department
second shift supervisor
boss
days
second shift
production aid
operator
department
second shift
department
clean up
thing
machine
machines
folders
jobs
list
production aid
crates
stuff
three thirty
boss
list
things
set ups
machines
jobs
lot
stuff
basis
month
job
job
set up
jobs
problem
problems
jobs
machines
problems
shift
operator
department
trouble
boss
days
double
weeks
input
problems
rollers
moment
moment
rollers
machine
metal
rubber
rollers
rollers
paper
time
people
department
women
stuff
job
job
quote
unqoute
things
job description
hundred pounds
lot
women
hundred pounds
job
lot
paper cuts
pain
machine
repair
fuses
things
mechanic
work
job
sigs
product
matter
operator
machine
3:25
list
machine
four folders
four
one
night
safety shoes
steel toed shoes
safety shoes
steel toes
sneakers
couple
years
boots
work boots
steel toe
floor
supervisor
work
floor
place
office
building
departments
floor
skid
jacks
stuff
foot
safety
things
floor
steel
toes
steel toe
top
foot
shoes
step
step
load
ticket
job ticket
instructions
production aid
specialty
press room
department
job
lift
front
machine
ticket
trim
jobs
folders
edge
half
set up
size
sheet

PRELIMINARY DOMAIN ANALYSIS

	second shift supervisor boss production aid operator	machine machines folders
	[work in]	[are in]
domain	department	department
	second shift supervisor production aid operator	jobs set up rollers
	[work on]	[can cause]
domain	second shift	problems
	trouble problems	monthly
	[bring to]	[type of]
domain	boss	job
	things jobs	list help input
	[are on]	[come from]
domain	list	boss

	crates stuff	rollers metal rubber
	[are moved by]	[are found on]
domain	production aid	machine
	people women	metal rollers rubber rollers plates suction wheel guide slitter wheel feeder friction wheel stop
	[are in]	[are parts of]
domain	department	folder

DOMAIN ANALYSIS WORKSHEET

1. semantic relationship: strict inclusion
2. form: x is a kind of y
3. example: a folder is a kind of machine

Include Terms	Semantic Relationship	Cover Term
folders stitchers drill presses [casing in] "line" cutter	is a kind of	machine
half quarters thirds 16 page 32 pages	is a kind of	fold

[Note: Half, quarters, thirds are terms not really used. 16 page, 32 pages, and other "page" terms are most often used.]

number 1 number 2 folder operator	is a kind of	operator
folding sewing printing	is a kind of	department
16 page 32 page	is a kind of	set up
night day second shift	is a kind of	shift
steel toed shoes sneakers work boots	is a kind of	safety shoe

specialty regular	is a kind of	press room
suction friction	is a kind of	feeder
32 16 8 4	is a kind of	sig

[Note: This is the same as folds and set ups. She also referred to paper as being the sig, not that these two terms were used interchangeably, but that they were the same thing.]

helper handler inspectors "p.a."	is a kind of	production aid
books supplements	is a kind of	job
drill #2 machines	is a kind of	simplified machine

DOMAIN ANALYSIS WORKSHEET

1. semantic relationship: means-end
2. form: x is a way to y
3. example

Included Terms	Semantic Relationship	Cover Term
rollers heat up rollers expand rollers get tighter	is a way to	have problems

DOMAIN ANALYSIS WORKSHEET

1. semantic relationship: spatial
2. form: x is a place in y
   x is a part of y
3. example: folding is a place on the floor

Included Terms	Semantic Relationship	Cover Term
folding sewing	is a part of	floor
metal rollers rubber rollers plates suction wheel friction wheel guide slitter wheel feeder stop fuses	is a part of	folder
steel plate steel toes	is a part of	safety shoes
instructions job ticket	is a part of	job, run
instructions	is a part of	job ticket
feed hoppers moves crates moves stuff loads inspects	is a part of	production aid's job

APPENDIX G

Excerpt from interview two with Informant One, April 26, 1990

Researcher: Another thing you mentioned when we went on a tour last week, you mentioned you felt people had to have a certain amount of intelligence and they had...

Informant One: Physical ability, too.

Researcher: and mental attitude. Can you elaborate on those?

Informant One:

Well. Knowledge of machine or a little mechanical knowledge never hurts anybody. If you want to be a machine operator, you have to know how a machine works. You've got to almost get into it. You have to say to yourself, "Okay." You have to know more than how to run it on and turn it off. You have to be able to work on it yourself. That's basic machine knowledge. You just have to have a little bit of background in it to begin with. Intelligence level is because things are, you can't be dumb down there. Can't act dumb when your machine breaks down. Because everybody does run their own equipment. You're assigned to that machine to run it. So you can't be going across the room and saying, "Hey! You were over there yesterday. What happened?" You've got to figure out for yourself. You have to have basic knowledge. You have to have mechanical ability because you have to be able to use tools. Sometimes there's, take a chain off, or take a belt off and get a new one. You have to know how to take if off and go through the pulleys and gears. Adjustment of rollers itself is a mechanical ability. And then mental attitude. Because the machine will kill you. They've gotten to me before. You can go in there and you'll do all your basic stuff that you... All your mechanical abilities... and machine still won't run. So you've got to keep an even attitude. Attitudes, I think attitudes are very important to machine operators. You have to have a productive attitude. So that you'll want to get the work out. You can't just run the machine at five books every minute. They run... I'm not sure what the new line count is, but I think it's forty books per minute. Completed books. so, you have to have a good attitude, you know. This is my job. I've got to make production so that I can get a good review, get a good raise. But I also like to keep everyone else going too. I've had days downstairs where I've wanted to pull my hair out, you know. But if you do, the machine will beat you. Our machines in the folding department, they're touchy. Like I said, you can get one side to run perfect and the other side will run really bad. You can sit there all day and either cry or... That machine's made me cry a couple of times. That's where I feel like a girl. Go to the bathroom, go kick something.

Researcher: Do you think that women have to have the same intelligence, mental attitude, as the men?

Informant One:

I think women have to have a stronger mental attitude. They do have to have the same intelligence as a man. I think anyone who runs a machine has to have the same intelligence level. You know, if you're running the same machine you're after each other. You have to know what's going on. But I think as a woman, I think I have to have a stronger emotional and mental attitude. Because guys are... If the machine isn't running and a guy goes, "Oh well," and he starts tearing it apart. Where a woman, I've had days where I don't feel like tearing that machine apart. I don't want to take it apart. I've found myself praying on the machine, "God, why me?" You know. But, I think, cause women are more emotional than men. I've had days where I've walked off that machine, one to the bathroom and kicked something and stood there, and shed a few tears before. I've never seen a man break down and cry on a machine before. But I have seen women. I've seen other women go out of here and walk right off the job. Not being able to handle it. They say, "This is it. I can't take it." The equipment. I've offered to quit before. I've told my boss, "Fire me. Do me a favor and fire me." There's been times like that. There are times like that. That's one of the reasons I came on days for training. I've been having some real hard times lately. Whether it be my attitude or what. I'm not sure. But, things have gotten a little tough sometime, you know. I just want to go home. So I walk away and go home. And other guys walk by and go, "Ah, it's just a machine. Think of it as that." Sometimes, you know, you got to, almost befriend this machine."Come on." Give a little pat on the back.

APPENDIX H

Excerpts from interview two with Informant One, April 26,1990

Researcher: Do you think a woman is better at operating, for instance, the sewing machine?

Informant One:

I never ran one but I would say they would be. Because of the thread and the needles and the... A woman has a better eye, I think, than a man. Men are more into, what I've noticed, men are more into production, women are more into quality. And the sewing department is a very quality department. Books have to be sewn right or they are not going to run the rest of the line. They're just not going to go through. Or they'll break. I think women are much more self conscious of their work than a man. And in sewing department they have to be very touchy about what they let go and what they don't. Guys are going to say, "Wow, I got a thousand books out." And a woman may only put 700 out. Hers look better. Hers are sewn better. They're not going to fall apart. You're not going to have a problem with them. You know. I had that problem in my department. All my reviews have been about standard in my quality, and yet my production is standard because sometimes I do run slower than the guys. Because if you're running a little slower, it looks a little better. I'm not... I told my boss, we were having a little dispute about this a while a go, over my production amounts, because... I told him, I said, "Look. I can run you a hundred thousand in a day, you know, a self mailer, but it'll look like heck. Would you rather I ran eighty thousand and they look really nice. You know. I'm not in competition with anybody in this place. My boss is very competitive. You know. It's almost like he wants all of us operators to compete with each other. "How much did you get out today?" You know. I'm not into that. I'm not... I want to do my job and I want to do it right. And I would rather do eighty thousand good and have none come back, than do a hundred thousand and have somebody come back and say, "What's this you gave me. What'd you give me this for?" You know. I'm very... Women are much more picky. And I think that's one reason that they're held back. Or they don't get ahead. Like they set things. They see, that book's okay, you know. "I don't want that hanging over my head." You know. "What if they come back?" You know. A lot of the guys don't seem to worry about that. They don't seem to care. Or they don't care enough. "Well, let's pass it. We'll let it go." You know. I'm not like that. I want my work right, the first time. And like I said the sewing department. It's a very picky department. They have to be. And I think that's one reason why women have succeeded in that department more than the men have.

Researcher: And also, then, that would explain the same, what you just described, in the finishing/inspecting end.

Informant One:

Right. There are more women on the inspection line because women are more picky. And I think they prefer a woman's touch on the end. It's up to the supervisor who he hires. But I think most supervisors who have been here long enough know that they'd rather have a woman inspector than a man. That's why they are, almost every one of them is a woman down there. Not very many... That's my point of view, that I would figure a supervisor would do it for.

Researcher: Sure, because then that person looks good.

Informant One:

Right. I make him look good. He doesn't pass on bad work to another department. His books aren't coming back. You know, when I worked over on that line, that's what I felt. The women inspectors were handing a lot more books back. Or going, "Hey, This is wrong." Or this is wrong. And they'd fix it from there. And the guys would always yell, "You're so picky!" But I tell you what, they'd rather the woman was picky than have a load come back two days later and go "Why didn't you guys tell me this was wrong!" You know. They yell. It's funny to watch them sometimes. I've done it myself. I'd say, "Quit being so picky about everything." You know. But then if the job comes back or if it doesn't come back, you're glad they were so picky.

Researcher: Do you remember any of the problems, the reasons why women sent books back when it got to the finishing end?

Informant One:

Oh wow. Bad headbands. Where they pop off. You should be able to squeeze the back of a book and not have the headband come apart. Because that's what is going to keep it from aging. So there's not enough glue, so the headband's popping off. Or it's, if the book isn't put in the cover right, it won't seal. You know, when you open a book it's got that little edge. Well, if you don't do it right it's not, if it's not run through the machine right, or not enough grip on it, it's not squeezed enough, it won't hold. So the front end will come apart. And the end sheets will be bad. A lot of little stuff. The book's cut crooked, won't set in the covers. Most of the problem is, the biggest problem is, they don't set in the covers straight. The book is square and it's got to sit in the cover square. Other wise it looks bad. It doesn't. Cover might. It might look fine sitting on the table but you open it and the book's off to one angle or something. You can't send stuff like that out. I wouldn't anyway.

BIBLIOGRAPHY

BIBLIOGRAPHY

Abbott, Edith, "Women In Industry: A Study In American Economic History," Arno and The New York Times, NY, 1969, 409 pages.

"Antique, Modern & Swash - A Brief History Of Women In Printing," published by The Club of Printing Women of New York in commemoration of its 25th anniversary, New York, 1955.

The American Heritage Dictionary, based on the hardcover second college edition, Dell Publishing Co., Inc., New York, NY 1983, 878 pages.

Comparato, Frank E., "Books For The Millions: A History Of The Men Whose Methods And Machines Packaged The Printed Word," The Stackpole Company, Harrisburg, PA, 1971.

Dexter, Elisabeth Anthony, Ph.D., "Colonial Women Of Affairs - Women In Business And The Professions In America Before 1776," Augustus M. Kelley [publishers], Clifton, 1931, 223 pages.

Ellis, Jane, "The Invisible Woman," British Printer, Volume 100, Number 10, October 1987, p.37-38,41,44.

Esler, Bill, "Bottleneck In The Bindery," Graphic Arts Monthly, Volume 61, Number 5, May 1989, p.57, 58, 60, 62.

French, Hannah Dustin, Rogers, Joseph W., Lehmann-Haupt, Hellmut, "Bookbinding In America - Three Essays," RR Bowker Company, NY and London, 1967, 293 pages.

GATFWORLD, Volume 2, Issue 2, March/April 1990, Graphic Arts Technical Foundation, Pittsburgh, PA, 50 pages.

"The History Of Bookbinding 525-1950 A.D. -- An Exhibition Held At The Baltimore Museum Of Art November 12, 1954 to January 12, 1958," Published by The Trustees of the Walters Art Gallery, Baltimore, MD, 1957.

Notable American Women [1607-1950], The Belknap Press of Harvard University Press, Cambridge, MA, 1971.

O'Neill, Lois Decker [edited by], "The Women's Book Of World Records And Achievements," Anchor Press/Doubleday, Garden City, NY, 1979.

Oakhill, Emily J., and Rose, Kenneth W. [compiled by], "A Guide To Archives And Manuscripts At The Rockefeller Archive Center," Rockefeller Archive Center, 15 Dayton Avenue, Pocantico Hills, North Tarrytown, NY, 1989, 77 pages.

Patton, Michael Quinn, "Qualitative Evaluation Methods," Sage Publications, Beverly Hills, London, 1980, 379 pages.

Prideaux, Sarah T., "An Historical Sketch Of Bookbinding," Lawrence & Bullen, London, 1893.

Rebsamen, Werner, "Catching Up With The Revolution," American Printer, Volume 203, Number 2, May 1989, p.68,70,74.

_____, "Newspaper Mailrooms Of The 90's And Beyond," article for RIT Technology Perspective Column, February 1990.

"The Russell Sage Foundation - Social Research And Social Action In America, 1907-1947," UPA Academic Editions, guide to the microfiche collection, 114 pages.

Ryan, Mary P., "Womanhood In America: From Colonial Times To The Present," New Viewpoints, NY, 1975, 496 pages.

Sims, Calvin, "The Overlooked," The New York Times, January 7, 1990.

Spradley, James P., "The Ethnographic Interview," Holt, Rhinehart and Winston, NY, 1979, 247 pages.

_____, "The Cocktail Waitress - Woman's Work In A Man's World," John Wiley & Sons, Inc., NY, 1975, 154 pages.

Titcombe, Marianne Fletcher, "The Bookbinding Career Of Rachel McMasters Miller Hunt," Carnegie-Mellon University, Pittsburgh, PA, 1974, 63 pages.

Van Kleeck, Mary, "Discussion Of Trade Unionism," The Russell Sage Foundation, Early Office Files, 158T Department of Industrial Studies, Box 15, Folder 133, Rockefeller Archive Center, Pocantico Hills, North Tarrytown, NY.

_____, February 2, 1912 memorandum to John M. Glenn, Visit to Doubleday Page & Co., The Russell Sage Foundation, Early Office Files, 158T Department of Industrial Studies, Box 15, Folder 132, Rockefeller Archive Center, Pocantico Hills, North Tarrytown, NY.

_____, February 3, 1912 memorandum to John M. Glenn, Conference with Female Bindery Workers, The Russell Sage Foundation, Early Office Files, 158T Department of Industrial Studies, Box 15, Folder 132, Rockefeller Archive Center, Pocantico Hills, North Tarrytown, NY.

_____, February 8, 1912 memorandum to John M. Glenn, Report of visit to Philadelphia Binderies, The Russell Sage Foundation, Early Office Files, 158T Department of Industrial Studies, Box 15, Folder 132, Rockefeller Archive Center, Pocantico Hills, North Tarrytown, NY.

_____, February 27, 1912 memorandum, Report of trip to Doubleday Page & Co., The Russell Sage Foundation, Early Office Files, 158T Department of Industrial Studies, Box 15, Folder 132, Rockefeller Archive Center, Pocantico Hills, North Tarrytown, NY.

_____, "Investigating Women's Work In Binderies Of New York" [lecture given at the Student Conference of the Young Women's Christian Association, Silver Bay, Lake George, June 24th to July 4th, 1910], Mary Van Kleeck Papers, Box 29, Folder 537, The Sophia Smith Collection, Smith College, Northhampton, MA.

_____, [page 3 of] May 11, 1912 memorandum to John M. Glenn, The Russell Sage Foundation, Early Office Files, 158T Department of Industrial Studies, Box 15, Folder 132, Rockefeller Archive Center, Pocantico Hills, North Tarrytown, NY.

_____, "Women In The Bookbinding Trade," Russell Sage Foundation, Survey Associates, Inc., NY, 1913, 270 pages.